```
Connecting via Winsock to STN



Welcome to STN International!  Enter x:x

LOGINID:ssptajsl1623

PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2


* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1           Web Page for STN Seminar Schedule - N. America
 NEWS  2  AUG 15   CAOLD to be discontinued on December 31, 2008
 NEWS  3  OCT 07   EPFULL enhanced with full implementation of EPC2000
 NEWS  4  OCT 07   Multiple databases enhanced for more flexible patent
                   number searching
 NEWS  5  OCT 22   Current-awareness alert (SDI) setup and editing
                   enhanced
 NEWS  6  OCT 22   WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT
                   Applications
 NEWS  7  OCT 24   CHEMLIST enhanced with intermediate list of
                   pre-registered REACH substances
 NEWS  8  NOV 21   CAS patent coverage to include exemplified prophetic
                   substances identified in English-, French-, German-,
                   and Japanese-language basic patents from 2004-present
 NEWS  9  NOV 26   MARPAT enhanced with FSORT command
 NEWS 10  NOV 26   MEDLINE year-end processing temporarily halts
                   availability of new fully-indexed citations
 NEWS 11  NOV 26   CHEMSAFE now available on STN Easy
 NEWS 12  NOV 26   Two new SET commands increase convenience of STN
                   searching
 NEWS 13  DEC 01   ChemPort single article sales feature unavailable
 NEWS 14  DEC 12   GBFULL now offers single source for full-text
                   coverage of complete UK patent families
 NEWS 15  DEC 17   Fifty-one pharmaceutical ingredients added to PS

 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS LOGIN    Welcome Banner and News Items
 NEWS IPC8     For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that
specific topic.

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  result in loss of user privileges and other penalties.

* * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *
```

FILE 'HOME' ENTERED AT 16:23:47 ON 30 DEC 2008

=> b reg
COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION
FULL ESTIMATED COST | 0.21 | 0.21

FILE 'REGISTRY' ENTERED AT 16:24:03 ON 30 DEC 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 29 DEC 2008 HIGHEST RN 1091682-77-7
DICTIONARY FILE UPDATES: 29 DEC 2008 HIGHEST RN 1091682-77-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

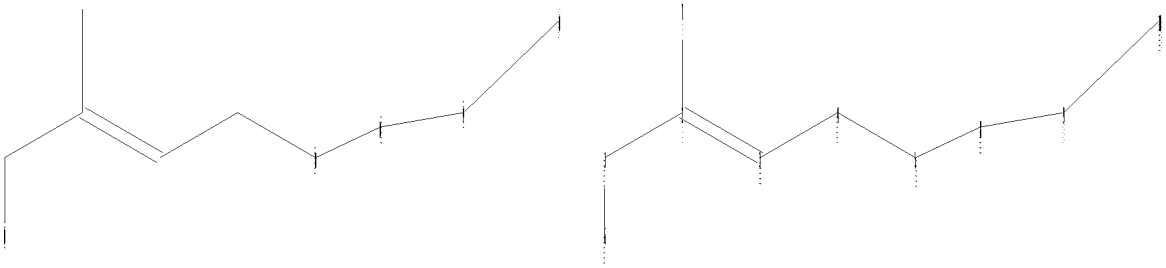
=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 1942 AND 1992 AND 2006 AND 2016

L1 SCREEN CREATED

=>
Uploading C:\Documents and Settings\jlau1\My Documents\10581144 - HDMAPP\genus.str



chain nodes :
1 2 3 4 5 6 7 8 9 10
chain bonds :
1-2 1-6 2-3 2-7 3-4 4-5 5-8 8-9 9-10
exact/norm bonds :
1-6 4-5 5-8 8-9 9-10

exact bonds :
1-2  2-3  2-7  3-4

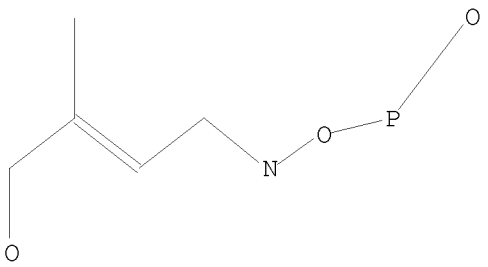
Match level :
1:CLASS  2:CLASS  3:CLASS  4:CLASS  5:CLASS  6:CLASS  7:CLASS  8:CLASS  9:CLASS
10:CLASS

L2      STRUCTURE UPLOADED

=> que L2 AND L1

L3   QUE L2 AND L1

=> d l2
L2 HAS NO ANSWERS
L2              STR




Structure attributes must be viewed using STN Express query preparation.

=> s l3 sss sam
SAMPLE SEARCH INITIATED 16:24:19 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -        0 TO ITERATE

100.0% PROCESSED        0 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            0 TO        0
PROJECTED ANSWERS:               0 TO        0

L4            0 SEA SSS SAM L2 AND L1

=> s l2 sss sam
SAMPLE SEARCH INITIATED 16:24:31 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -        0 TO ITERATE

100.0% PROCESSED        0 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            0 TO        0

```
PROJECTED ANSWERS:                0 TO        0

L5             0 SEA SSS SAM L2

=> logoff hodl
'HODL' IS NOT VALID HERE
For an explanation, enter "HELP LOGOFF".

=> logoff hold
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.92       1.13

 SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 16:25:04 ON 30 DEC 2008

Connecting via Winsock to STN



Welcome to STN International!  Enter x:x

LOGINID:ssptajsl1623

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'REGISTRY' AT 16:26:51 ON 30 DEC 2008
FILE 'REGISTRY' ENTERED AT 16:26:51 ON 30 DEC 2008
COPYRIGHT (C) 2008 American Chemical Society (ACS)

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.92       1.13

=> b reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     1.38       1.59

FILE 'REGISTRY' ENTERED AT 16:27:13 ON 30 DEC 2008
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   29 DEC 2008  HIGHEST RN 1091682-77-7
DICTIONARY FILE UPDATES:  29 DEC 2008  HIGHEST RN 1091682-77-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
```

predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end

=> screen 1942 AND 1992 AND 2006 AND 2016

L6    SCREEN CREATED

=>
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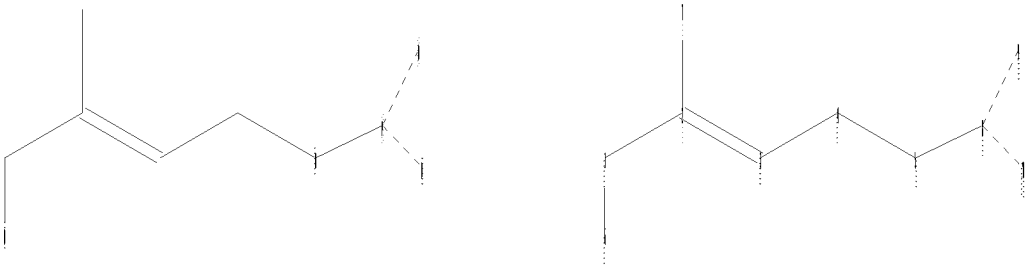


chain nodes :
1  2  3  4  5  6  7  8  9  10
chain bonds :
1-2  1-6  2-3  2-7  3-4  4-5  5-8  8-9  8-10
exact/norm bonds :
1-6  4-5  5-8  8-9  8-10
exact bonds :
1-2  2-3  2-7  3-4

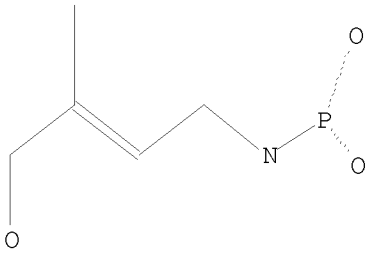
Match level :
1:CLASS  2:CLASS  3:CLASS  4:CLASS  5:CLASS  6:CLASS  7:CLASS  8:CLASS  9:CLASS
10:CLASS

L7      STRUCTURE UPLOADED

=> que L7 AND L6

L8   QUE L7 AND L6

=> d l7
L7 HAS NO ANSWERS
L7              STR




Structure attributes must be viewed using STN Express query preparation.

```
=> s l8 sss sam
SAMPLE SEARCH INITIATED 16:27:43 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -        1 TO ITERATE

100.0% PROCESSED        1 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            1 TO       80
PROJECTED ANSWERS:               0 TO        0

L9            0 SEA SSS SAM L7 AND L6

=> s l7 sss sam
SAMPLE SEARCH INITIATED 16:27:52 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -        1 TO ITERATE

100.0% PROCESSED        1 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            1 TO       80
PROJECTED ANSWERS:               0 TO        0

L10           0 SEA SSS SAM L7

=> s l7 sss full
FULL SEARCH INITIATED 16:28:04 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -       40 TO ITERATE

100.0% PROCESSED       40 ITERATIONS                                5 ANSWERS
SEARCH TIME: 00.00.01

L11           5 SEA SSS FUL L7

=> d l11 1-5

L11  ANSWER 1 OF 5  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   1089667-53-7  REGISTRY
ED   Entered STN:  24 Dec 2008
CN   INDEX NAME NOT YET ASSIGNED
FS   STEREOSEARCH
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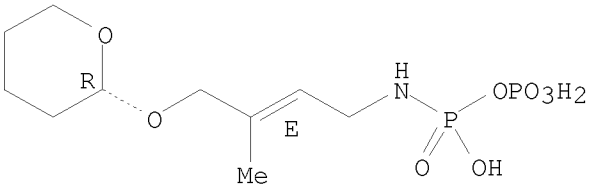
MF  C10 H21 N O8 P2
SR  CA
LC  STN Files:  CA, CAPLUS

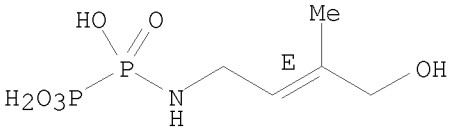
Absolute stereochemistry.
Double bond geometry as shown.




1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11  ANSWER 2 OF 5  REGISTRY  COPYRIGHT 2008 ACS on STN
RN  1026163-00-7  REGISTRY
ED  Entered STN:  08 Jun 2008
CN  INDEX NAME NOT YET ASSIGNED
FS  STEREOSEARCH
MF  C5 H13 N O6 P2
SR  Other Sources
    Database: ChemSpider (ChemZoo, Inc.)

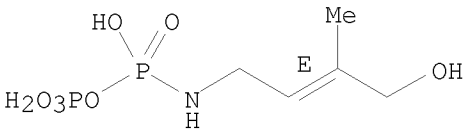
Double bond geometry as shown.




**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

L11  ANSWER 3 OF 5  REGISTRY  COPYRIGHT 2008 ACS on STN
RN  853682-73-2  REGISTRY
ED  Entered STN:  03 Jul 2005
CN  Amidodiphosphoric acid, N-[(2E)-4-hydroxy-3-methyl-2-buten-1-yl]-  (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN  Amidodiphosphoric acid, [(2E)-4-hydroxy-3-methyl-2-butenyl]- (9CI)
FS  STEREOSEARCH
MF  C5 H13 N O7 P2
CI  COM
SR  CA
LC  STN Files:  CA, CAPLUS, TOXCENTER

Double bond geometry as shown.

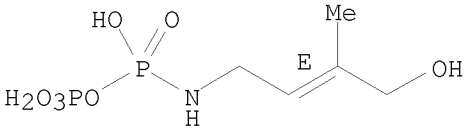


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

3 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 4 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN
RN 853402-91-2 REGISTRY
ED Entered STN: 30 Jun 2005
CN Amidodiphosphoric acid, [(2E)-4-hydroxy-3-methyl-2-butenyl]-, trisodium salt (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C5 H13 N O7 P2 . 3 Na
SR CA
LC STN Files: CA, CAPLUS
CRN (853682-73-2)

Double bond geometry as shown.

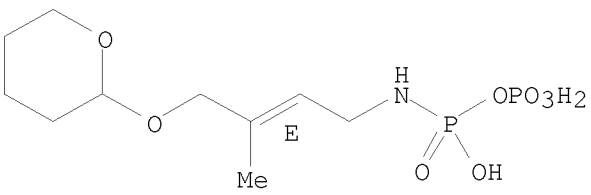



●3 Na

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 5 OF 5 REGISTRY COPYRIGHT 2008 ACS on STN
RN 853402-90-1 REGISTRY
ED Entered STN: 30 Jun 2005
CN Amidodiphosphoric acid, [(2E)-3-methyl-4-[(tetrahydro-2H-pyran-2-yl)oxy]-2-butenyl]- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C10 H21 N O8 P2
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Double bond geometry as shown.




**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

```
=> b caplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   188.82     190.41

FILE 'CAPLUS' ENTERED AT 16:28:19 ON 30 DEC 2008
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COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)
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FILE COVERS 1907 - 30 Dec 2008  VOL 150 ISS 1
FILE LAST UPDATED: 29 Dec 2008  (20081229/ED)

Caplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> s l11
L12          4 L11

=> s l12 and py<=2004
      25132454 PY<=2004
L13          1 L12 AND PY<=2004

=> d l12 1-4 ibib abs hitstr

L12  ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:        2008:1455006  CAPLUS
TITLE:                   Improved methods of using phosphoantigens for the
                         treatment of cancer
INVENTOR(S):             Sicard, Helene
PATENT ASSIGNEE(S):      Innate Pharma S.A., Fr.
SOURCE:                  PCT Int. Appl., 66pp.
                         CODEN: PIXXD2
DOCUMENT TYPE:           Patent
LANGUAGE:                English
FAMILY ACC. NUM. COUNT:  1
PATENT INFORMATION:

     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
     WO 2008146167        A2    20081204    WO 2008-IB2197         20080521
         W:  AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ,
```

CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRIORITY APPLN. INFO.: US 2007-941441P P 20070601

AB The present invention provides novel approaches and strategies for efficient regulation of γδ T cells in vivo, in a subject, particularly a human subject or a non-human primate. The present invention discloses particular compns. and methods that can be used to induce the proliferation of γδ T cells in vivo. These compns. and methods employ the conjoint treatment of an individual with a γδ T cell activating compound and IL-2 and are particularly suited for immunotherapy in a subject, particularly in a subject having cancer or an infectious disease.

IT *853682-73-2*

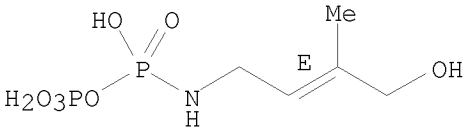
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(improved methods of using phosphoantigens for the treatment of cancer)

RN 853682-73-2 CAPLUS

CN Amidodiphosphoric acid, N-[(2E)-4-hydroxy-3-methyl-2-buten-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.




L12 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2008:614166 CAPLUS

DOCUMENT NUMBER: 148:577360

TITLE: Improved methods of using phosphoantigen for the treatment of cancer

INVENTOR(S): Tiollier, Jerome; Sicard, Helene; Bonnafous, Cecile

PATENT ASSIGNEE(S): Innate Pharma, Fr.

SOURCE: PCT Int. Appl., 107pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2008059052 | A1 | 20080522 | WO 2007-EP62456 | 20071116 |

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,

MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
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WO 2007057440 A2 20070524 WO 2006-EP68610 20061117
WO 2007057440 A3 20080403
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

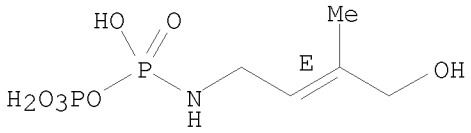
PRIORITY APPLN. INFO.: WO 2006-EP68610 A 20061117
US 2007-938020P P 20070515
US 2005-737588P P 20051117

AB The present invention relates to compns. and methods useful for treating a cancer in mammals, including humans. The methods and compns. typically comprise use of a chemotherapeutic agent and a γδ T cell activator, such that the composition is effective for treating a cancer. Preferably the composition enhances the effect of the T cell activator and/or prevents or delays the escape of a tumor from control chemotherapy, particularly an anti-angiogenic chemotherapeutic agent.

IT *853682-73-2*
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(improved methods of using phosphoantigen for treatment of cancer with γδ T cell activator in combination with chemotherapeutic agent)

RN 853682-73-2 CAPLUS
CN Amidodiphosphoric acid, N-[(2E)-4-hydroxy-3-methyl-2-buten-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.




REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2008:71311 CAPLUS
DOCUMENT NUMBER: 148:142876
TITLE: Methods and compositions for increasing the efficiency of therapeutic antibodies using γδ T cell activators

INVENTOR(S): Fournie, Jean-Jacques; Gertner, Julie; Sicard, Helene
PATENT ASSIGNEE(S): Institut National de la Sante et de la Recherche Medicale (INSERM), Fr.; Innate Pharma S.A.
SOURCE: PCT Int. Appl., 69pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2008006895 | A2 | 20080117 | WO 2007-EP57217 | 20070712 |
| WO 2008006895 | A3 | 20080327 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW | | | | |
| RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA | | | | |
| EP 1878440 | A1 | 20080116 | EP 2006-291146 | 20060713 |
| R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, AL, BA, HR, MK, YU | | | | |

PRIORITY APPLN. INFO.:
EP 2006-291146 A 20060713
US 2007-924208P P 20070503

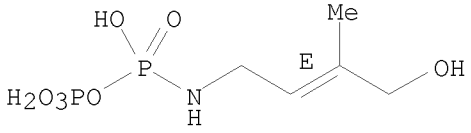
OTHER SOURCE(S): MARPAT 148:142876

AB The authors disclose the use of a therapeutic antibody in combination with a γδ+ T-cell-activating compound or activated γδ+ T-cells for potentiation of γδ+ T-cell cytotoxicity against targeted cells. In one example, phosphoantigen-activated γδ+ T-cells were shown to enhance the therapeutic efficacy of Rituximab against breast cancer cells.

IT *853682-73-2*
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(γδ+ T-cell activators increase efficacy of therapeutic antibodies)

RN 853682-73-2 CAPLUS
CN Amidodiphosphoric acid, N-[(2E)-4-hydroxy-3-methyl-2-buten-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.




L12 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:523468 CAPLUS

DOCUMENT NUMBER: 143:43970
TITLE: New class of gamma delta t cells activators and use thereof
INVENTOR(S): Belmant, Christian; Nury, Patrice
PATENT ASSIGNEE(S): Innate Pharma, Fr.
SOURCE: PCT Int. Appl., 56 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2005054258 | A2 | 20050616 | WO 2004-IB4311 | 20041202 |
| WO 2005054258 | A3 | 20060309 | | |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
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| WO 2004050096 | A2 | 20040617 | WO 2003-IB6375 | 20031202 |
| WO 2004050096 | A3 | 20040916 | | |
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| AU 2004295194 | A1 | 20050616 | AU 2004-295194 | 20041202 |
| CA 2547008 | A1 | 20050616 | CA 2004-2547008 | 20041202 |
| EP 1689758 | A2 | 20060816 | EP 2004-806475 | 20041202 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, BA, HR, IS, YU | | | | |
| CN 1890252 | A | 20070103 | CN 2004-80035657 | 20041202 |
| BR 2004017088 | A | 20070313 | BR 2004-17088 | 20041202 |
| JP 2007516244 | T | 20070621 | JP 2006-542053 | 20041202 |
| IN 2006DN02826 | A | 20070803 | IN 2006-DN2826 | 20060518 |
| MX 2006PA06327 | A | 20061211 | MX 2006-PA6327 | 20060602 |
| US 20070249565 | A1 | 20071025 | US 2007-581144 | 20070705 |

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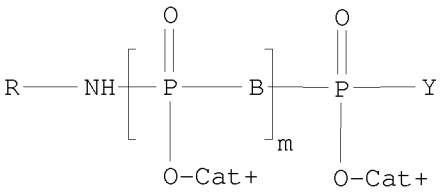
| PRIORITY APPLN. INFO.: | WO 2003-IB6375 | A | 20031202 |
| | US 2004-579237P | P | 20040615 |
| | EP 2002-292963 | A | 20021202 |
| | US 2004-579237 | A | 20040615 |
| | WO 2004-IB4311 | W | 20041202 |

OTHER SOURCE(S): CASREACT 143:43970; MARPAT 143:43970
GI



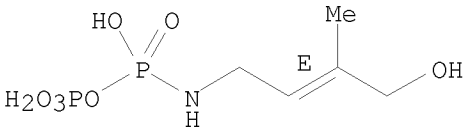
I

AB The present invention relates to a new class of compds., I (Cat+ = organic or mineral cation, H; m = 1-3; B = O, NH, any group capable of hydrolyzing; Y = O-Cat+, C1-3 alkyl, group consisting of nucleoside, oligonucleotide, nucleic acid, amino acid, peptide, protein, monosaccharide, etc.; R = linear, branched, cyclic, aromatic, (un)saturated C1-50 hydrocarbon, etc.), having γδ T cells activating properties, a composition comprising these compds. and methods for regulating an immune response in a subject comprising the step of administering these compds. Thus, (E)-4-hydroxy-3-methylbut-2-enyl pyrophosphoramidate is prepared in 6 steps starting from 2-methyl-2-vinyloxirane. Bioactivity of the compds. prepared is given.

IT *853682-73-2* *1089667-53-7*
RL: PRPH (Prophetic)
(New class of gamma delta t cells activators and use thereof)

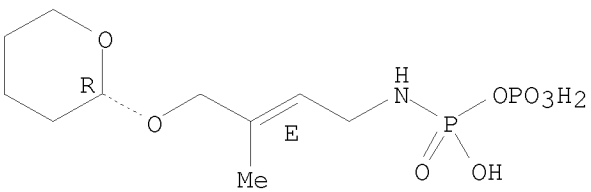
RN 853682-73-2 CAPLUS
CN Amidodiphosphoric acid, N-[(2E)-4-hydroxy-3-methyl-2-buten-1-yl]- (CA INDEX NAME)

Double bond geometry as shown.



RN 1089667-53-7 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

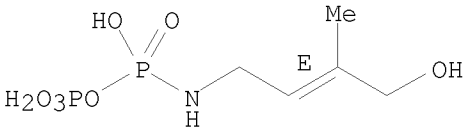
Absolute stereochemistry.
Double bond geometry as shown.



IT *853402-91-2P*
RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of pyrophosphoramidates as new class of gamma delta t cells activators)

RN 853402-91-2 CAPLUS
CN Amidodiphosphoric acid, [(2E)-4-hydroxy-3-methyl-2-butenyl]-, trisodium salt (9CI) (CA INDEX NAME)

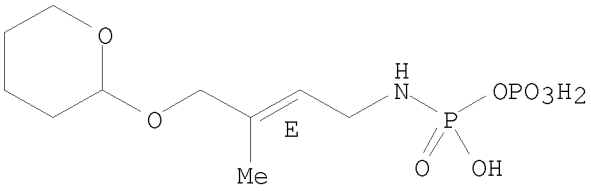
Double bond geometry as shown.




●3 Na

IT *853402-90-1P*
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of pyrophosphoramidates as new class of gamma delta t cells activators)
RN 853402-90-1 CAPLUS
CN Amidodiphosphoric acid, [(2E)-3-methyl-4-[(tetrahydro-2H-pyran-2-yl)oxy]-2-butenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.




REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 24.40 | 214.81 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | -3.20 | -3.20 |

FILE 'MARPAT' ENTERED AT 16:29:09 ON 30 DEC 2008


FILE CONTENT: 1961-PRESENT VOL 150 ISS 1 (20081226/ED)

MARPAT RECORDS ARE DERIVED FROM INPI DATA FOR 1961-1987

MOST RECENT CITATIONS FOR PATENTS FROM MAJOR ISSUING AGENCIES
(COVERAGE TO THESE DATES IS NOT COMPLETE):

```
US  20080287535 20 NOV 2008
DE 102007020694 06 NOV 2008
EP      1990852 12 NOV 2008
JP   2008291018 04 DEC 2008
WO   2008140345 20 NOV 2008
GB      2449363 19 NOV 2008
FR      2915993 14 NOV 2008
RU      2338533 20 NOV 2008
CA      2587880 04 NOV 2008

Expanded G-group definition display now available.

The new MARPAT User Guide is now available at:
 http://www.cas.org/support/stngen/stndoc/marpat.html.

=> d his

     (FILE 'HOME' ENTERED AT 16:23:47 ON 30 DEC 2008)

     FILE 'REGISTRY' ENTERED AT 16:24:03 ON 30 DEC 2008
L1              SCREEN 1942 AND 1992 AND 2006 AND 2016
L2              STRUCTURE UPLOADED
L3              QUE L2 AND L1
L4            0 S L3 SSS SAM
L5            0 S L2 SSS SAM

     FILE 'REGISTRY' ENTERED AT 16:27:13 ON 30 DEC 2008
L6              SCREEN 1942 AND 1992 AND 2006 AND 2016
L7              STRUCTURE UPLOADED
L8              QUE L7 AND L6
L9            0 S L8 SSS SAM
L10           0 S L7 SSS SAM
L11           5 S L7 SSS FULL

     FILE 'CAPLUS' ENTERED AT 16:28:19 ON 30 DEC 2008
L12           4 S L11
L13           1 S L12 AND PY<=2004

     FILE 'MARPAT' ENTERED AT 16:29:09 ON 30 DEC 2008

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SAMPLE SCREEN SEARCH COMPLETED -      241 TO ITERATE

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FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
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PROJECTED ANSWERS:             118 TO      642

L14          19 SEA SSS SAM L7

=> s l11 sss full
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L15 319 SEA SSS FUL L7

=> b caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 64.96 279.77

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE ENTRY TOTAL SESSION
CA SUBSCRIBER PRICE 0.00 -3.20

FILE 'CAPLUS' ENTERED AT 16:29:51 ON 30 DEC 2008


FILE COVERS 1907 - 30 Dec 2008 VOL 150 ISS 1
FILE LAST UPDATED: 29 Dec 2008 (20081229/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> s l15
L16 319 L15

=> s l16 and py<=2004
25132454 PY<=2004
L17 243 L16 AND PY<=2004

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12906 PHOSPHORAM?
L18 16 L17 AND PHOSPHORAM?

=> d l18 1-16 ibib abs hitstr

L18 ANSWER 1 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:507714 CAPLUS
DOCUMENT NUMBER: *135:77056*
TITLE: Process for the solid-phase preparation of DNA
INVENTOR(S): Capaldi, Daniel C.; Ravikumar, Vasulinga; Cole,

| | |
|---|---|
| | Douglas L. |
| PATENT ASSIGNEE(S): | Isis Pharmaceuticals, Inc., USA |
| SOURCE: | PCT Int. Appl., 62 pp. |
| | CODEN: PIXXD2 |
| DOCUMENT TYPE: | Patent |
| LANGUAGE: | English |
| FAMILY ACC. NUM. COUNT: | 1 |
| PATENT INFORMATION: | |

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 2001049701 | A1 | 20010712 | WO 2000-US35612 | 20001229 <-- |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| US 6649750 | B1 | 20031118 | US 2000-477878 | 20000105 <-- |
| EP 1244682 | A1 | 20021002 | EP 2000-988435 | 20001229 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |

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|---|---|---|---|
| PRIORITY APPLN. INFO.: | US 2000-477878 | A | 20000105 |
| | WO 2000-US35612 | W | 20001229 |
| OTHER SOURCE(S): | MARPAT 135:77056 | | |

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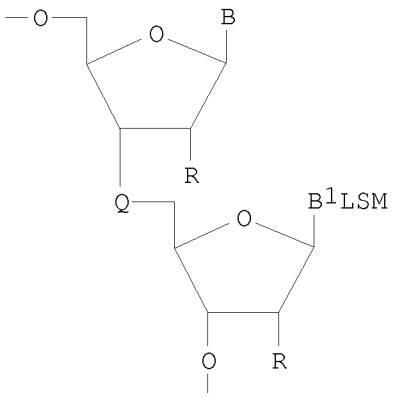


I

AB Processes for the preparation of oligomeric compds. having at least one moiety of formula I wherein Q is internucleoside linkage, B is an optionally blocked heterocyclic base; B1 is a purine or purine analog; each R is independently H or proportionally protected substituted group; L is a bifunctional linking moiety; SM is a support medium, are provided wherein high purity DNA are prepared using support bound *phosphoramidite* protocols starting with a nucleoside or larger synthon linked to a support media through a nucleosidic heterocyclic base moiety (no data). Intermediates undergoing depurination at the support linkage site are

removed during the wash cycle. Also provided are compns. useful in such processes. The polymeric support used is poly(N-acryloylmorpholine) and oxidizing agent is an oxaziridine.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 2 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:435084 CAPLUS

DOCUMENT NUMBER: *135:19876*

TITLE: Preparation of carbocyclic nucleoside analogs of (1S,cis)-4-(2-amino-9H-purin-9-yl)-2-cyclopentene-1-methanol as antiviral agents

INVENTOR(S): Daluge, Susan Mary

PATENT ASSIGNEE(S): Glaxo Group Limited, UK

SOURCE: PCT Int. Appl., 41 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE |
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| WO 2001042256 | A1 | 20010614 | WO 2000-US33204 | | 20001207 <-- |
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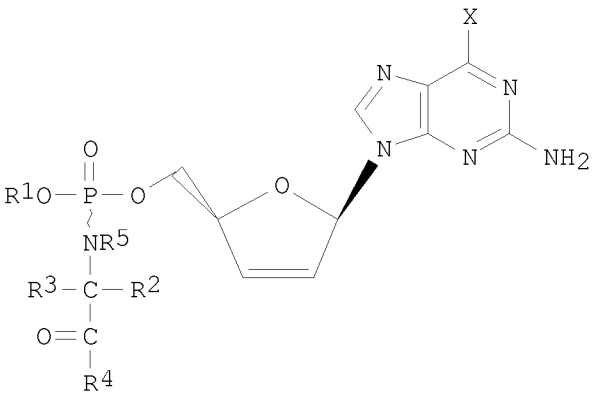
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | | |
| EP 1235833 | A1 | 20020904 | EP 2000-984009 | | 20001207 <-- |
| EP 1235833 | B1 | 20040225 | | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | | |
| JP 2003516409 | T | 20030513 | JP 2001-543554 | | 20001207 <-- |
| AT 260288 | T | 20040315 | AT 2000-984009 | | 20001207 <-- |
| ES 2213061 | T3 | 20040816 | ES 2000-984009 | | 20001207 <-- |
| US 20030040506 | A1 | 20030227 | US 2002-149198 | | 20020610 <-- |
| PRIORITY APPLN. INFO.: | | | US 1999-170225P | P | 19991210 |
| | | | WO 2000-US33204 | W | 20001207 |

OTHER SOURCE(S): MARPAT 135:19876

GI



I

AB The present invention relates to (1R,cis)-4-(4-amino-7H-pyrrolo[2,3-d]pyrimidine-7-yl)-2-cyclopentene-1-methanol derivs. I wherein; R1 is hydrogen; aryl; or heteroaryl, optionally substituted with alkoxy, nitro, halogen, amino, hydroxy, carboxylate and esters thereof, carboxyalkyl, amide; R2 and R3 are independently selected from hydrogen; or substituted alkyl, cycloalkyl, alkenyl, cycloalkenyl, aryl, or aralkyl; R4 is OR6, -NR6R7 or -SR6, where R6 and R7, which may be the same or different, are independently selected from hydrogen, or alkyl, cycloalkyl, alkenyl, cycloalkenyl, heterocycle, aralkyl, aryl or alkylaryl wherein each may be optionally substituted with one or more substituents selected from the group consisting of halo, hydroxy, alkoxy, amino, aminoalkyl, aminodialkyl, -SH, thioalkyl, carboxylate and esters thereof, carboxyalkyl, amide; R5 is hydrogen, alkyl, or aryl, or R2 and R5 may together form a 5- or 6-membered ring; or R3 and R5 may together form a 5- or 6-membered ring; X is alkoxy, optionally substituted with cycloalkyl, cycloalkyloxy, aryloxy, aralkyl or aralkyloxy, cycloalkylthio; alkylthio; arylthio, or aralkylthio, heterocyclic with optional double bonds in the ring, were prepared as antiviral agents. Thus, (1S,cis)-4-[2-amino-6-(1-azetidinyl)-9H-purin-9-yl]-2-cyclopentene-1-methanol O-[phenyl(methoxy-L-alaninyl)]*phosphoramidate* was prepared and tested as antiviral agent in MT4 cells (IC50 = 0.01-2.5 μM). Anti-hepatitis B activity of the compds. was in the range IC50 of 0.020-4.0 μM.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 3 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2001:435083 CAPLUS

DOCUMENT NUMBER: *135:19875*

TITLE: Preparation of carbocyclic nucleoside (1R,cis)-4-(4-amino-7H-pyrrolo[2,3-d]pyrimidine-7-yl)-2-cyclopentene-1-methanol derivatives as antiviral

INVENTOR(S): Daluge, Susan Mary; Gudmundsson, Kristjan

PATENT ASSIGNEE(S): Glaxo Group Limited, UK

SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| | | | | |
|---|---|---|---|---|
| WO 2001042255 | A1 | 20010614 | WO 2000-US33147 | 20001207 <-- |
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| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| AU 2001025760 | A | 20010618 | AU 2001-25760 | 20001207 <-- |
| EP 1235834 | A1 | 20020904 | EP 2000-989224 | 20001207 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| JP 2003516408 | T | 20030513 | JP 2001-543553 | 20001207 <-- |
| US 20030045508 | A1 | 20030306 | US 2002-149457 | 20020610 <-- |
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OTHER SOURCE(S): MARPAT 135:19875

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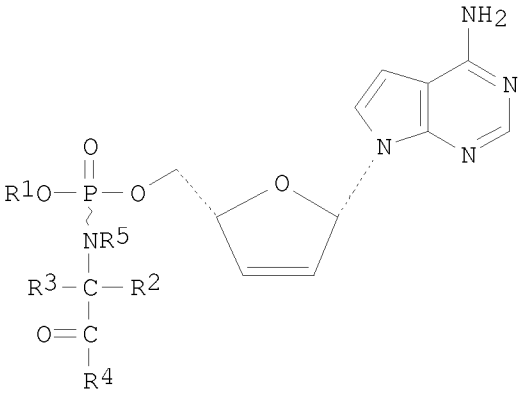

I

AB The present invention relates to (1R,cis)-4-(4-amino-7H-pyrrolo[2,3-d]pyrimidine-7-yl)-2-cyclopentene-1-methanol derivs. I wherein; R1 is hydrogen; aryl; or heteroaryl, optionally substituted with alkoxy, nitro, halogen, amino, hydroxy, carboxylate and esters thereof, carboxyalkyl, amide; R2 and R3 are independently selected from hydrogen; or substituted alkyl, cycloalkyl, alkenyl, cycloalkenyl, aryl, or aralkyl; R4 is OR6, -NR6R7 or -SR6, where R6 and R7, which may be the same or different, are independently selected from hydrogen, or alkyl, cycloalkyl, alkenyl, cycloalkenyl, heterocycle, aralkyl, aryl or alkylaryl wherein each may be optionally substituted with one or more substituents selected from the group consisting of halo, hydroxy, alkoxy, amino, aminoalkyl, aminodialkyl, -SH, thioalkyl, carboxylate and esters thereof, carboxyalkyl, amide; R5 is hydrogen, alkyl, or aryl, or R2 and R5 may together form a 5- or 6-membered ring; or R3 and R5 may together form a 5- or 6-membered ring; were prepared as antiviral agents. Thus, (1R,cis)-4-[4-amino-7H-pyrrolo[2,3-d]pyrimidin-7-yl]-2-cyclopentene-1-methanol-O-[phenyl(methoxy L-alaninyl)]*phosphoramidate* was prepared and tested as antiviral agent in MT4 cells (IC50 = 0.01-1.0 μM). Anti-hepatitis B activity of the compds. demonstrated improved activity by as much as 100-fold over that of the corresponding nucleoside analogs.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 4 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:573804 CAPLUS
DOCUMENT NUMBER: *133:164270*
TITLE: Preparation of carbocyclic nucleoside *phosphoramidates* as antiviral agents
INVENTOR(S): Daluge, Susan Mary; McGuigan, Christopher
PATENT ASSIGNEE(S): Glaxo Group Limited, UK; University College Cardiff Consultants Limited
SOURCE: PCT Int. Appl., 68 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| WO 2000047591 | A1 | 20000817 | WO 2000-EP1045 | 20000210 <-- |
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| EP 1150988 | B1 | 20030528 | | |
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| HU 2001005476 | A3 | 20020828 | | |
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| ES 2200820 | T3 | 20040316 | ES 2000-905043 | 20000210 <-- |
| NZ 513450 | A | 20040326 | NZ 2000-513450 | 20000210 <-- |
| AU 772478 | B2 | 20040429 | AU 2000-26713 | 20000210 <-- |
| CN 1803810 | A | 20060719 | CN 2004-10001601 | 20000210 |
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| US 7115590 | B1 | 20061003 | US 2001-913226 | 20011026 |
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| WO 2000-EP1045 | W | 20000210 |

OTHER SOURCE(S): MARPAT 133:164270
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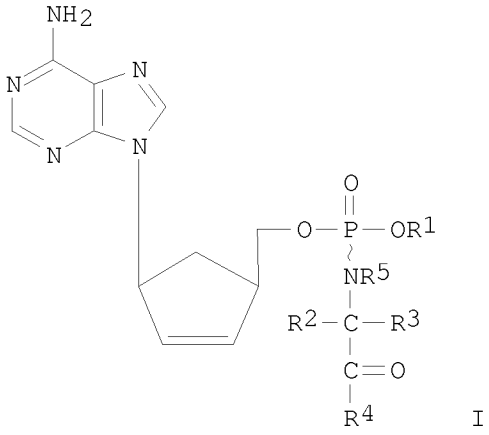

I

AB The present invention relates to analogs of (1R,cis)-4-(6-amino-9H-purin-9-yl)-2-cyclopentene-1-methanol derivs. I (R1 = H, aryl, substituted heteroaryl; R2, R3 = independently H, alkyl, cycloalkyl, alkenyl, cycloalkenyl, aryl, aralkyl; R4 = alkoxy, substituted amine; R5 = H, alkyl, aryl; R2R5 = 5 to 6-membered ring), processes for their preparation, and their use in treating viral infections. Thus, (1R,cis)-4-(6-amino-9H-purinyl-9-yl)-2-cyclopentene-1-methanol-O-(phenylmethoxy-L-alaninyl)*phosphoramidate* was prepared and tested for its anti-HIV activity in MT4 cells and for its antihepatitus B virus activity (IC50 = 0.018 mM).

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 5 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:218411 CAPLUS

DOCUMENT NUMBER: *132:246346*

TITLE: NAALADase inhibitors, preparation thereof, pharmaceutical compositions, and use in the treatment of prostate disease

INVENTOR(S): Jackson, Paul F.; Slusher, Barbara S.; Tays, Kevin L.; Maclin, Keith M.

PATENT ASSIGNEE(S): Guilford Pharmaceuticals Inc., USA

SOURCE: U.S., 37 pp., Cont.-in-part of U.S. 5,672,592. CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 17

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| US 6046180 | A | 20000404 | US 1997-863624 | 19970527 <-- |
| US 5672592 | A | 19970930 | US 1996-665776 | 19960617 <-- |
| US 5795877 | A | 19980818 | US 1996-775586 | 19961231 <-- |
| US 5863536 | A | 19990126 | US 1996-778733 | 19961231 <-- |
| CA 2258587 | A1 | 19971224 | CA 1997-2258587 | 19970616 <-- |
| WO 9748400 | A1 | 19971224 | WO 1997-US11540 | 19970616 <-- |

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AU 9735135 A 19980107 AU 1997-35135 19970616 <--
EP 936914 A1 19990825 EP 1997-931529 19970616 <--
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JP 2002514160 T 20020514 JP 1998-503609 19970616 <--
US 6017903 A 20000125 US 1997-884479 19970627 <--
US 5977090 A 19991102 US 1997-899319 19970723 <--
US 6025345 A 20000215 US 1997-900194 19970725 <--
ZA 9707086 A 19980630 ZA 1997-7086 19970808 <--
ZA 9707085 A 19990208 ZA 1997-7085 19970808 <--
ZA 9707088 A 19990308 ZA 1997-7088 19970808 <--
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CA 2264158 A1 19980402 CA 1997-2264158 19970815 <--
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AU 9741518 A 19980417 AU 1997-41518 19970815 <--
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AU 739443 B2 20011011
BR 9711555 A 19990824 BR 1997-11555 19970815 <--
CN 1230889 A 19991006 CN 1997-198122 19970815 <--
EP 949922 A1 19991020 EP 1997-939427 19970815 <--
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EP 994707 A1 20000426 EP 1997-937265 19970815 <--
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EP 1005348 A1 20000607 EP 1997-938314 19970815 <--
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| US 6384022 | B1 | 20020507 | US 1997-1667 | | 19971231 <-- |
| KR 2000036227 | A | 20000626 | KR 1999-702297 | | 19990318 <-- |
| NO 9901387 | A | 19990527 | NO 1999-1387 | | 19990322 <-- |
| US 6413948 | B1 | 20020702 | US 1999-388442 | | 19990902 <-- |
| PRIORITY APPLN. INFO.: | | | US 1996-665776 | A2 | 19960617 |
| | | | US 1996-775586 | A2 | 19961231 |
| | | | US 1996-778733 | A2 | 19961231 |
| | | | US 1996-665775 | A2 | 19960617 |
| | | | US 1996-718703 | A2 | 19960927 |
| | | | US 1997-825997 | A2 | 19970404 |
| | | | US 1997-835572 | A2 | 19970409 |
| | | | US 1997-842360 | A2 | 19970424 |
| | | | US 1997-858985 | A2 | 19970527 |
| | | | US 1997-863624 | A | 19970527 |
| | | | US 1997-864545 | A2 | 19970528 |
| | | | WO 1997-US11540 | W | 19970616 |
| | | | US 1997-884479 | A2 | 19970627 |
| | | | US 1997-899319 | A2 | 19970723 |
| | | | US 1997-900194 | A | 19970725 |
| | | | WO 1997-US14344 | W | 19970815 |
| | | | WO 1997-US14347 | W | 19970815 |
| | | | WO 1997-US14417 | W | 19970815 |

OTHER SOURCE(S): MARPAT 132:246346

AB The invention discloses dipeptidase inhibitors, and more particularly, phosphonate derivs., hydroxyphosphinyl derivs., and *phosphoramidate* derivs. that inhibit N-Acetylated α-Linked Acidic Dipeptidase (NAALADase), pharmaceutical compns. comprising the derivs., and methods of using the derivs. to inhibit NAALADase activity and to treat prostate diseases, especially for the inhibition of the growth of prostate cancer cells.

REFERENCE COUNT: 70 THERE ARE 70 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 6 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:113092 CAPLUS

DOCUMENT NUMBER: *132:161240*

TITLE: Certain dioic acid derivatives useful as N-acetylated α-linked acidic dipeptidase (NAALADase) inhibitors

INVENTOR(S): Jackson, Paul F.; Slusher, Barbara S.; Tays, Kevin L.; Maclin, Keith M.

PATENT ASSIGNEE(S): Guilford Pharmaceuticals Inc., USA

SOURCE: U.S., 35 pp., Cont.-in-part of U.S. 5,672,592. CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 17

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| US 6025344 | A | 20000215 | US 1997-858985 | 19970527 <-- |
| US 5672592 | A | 19970930 | US 1996-665776 | 19960617 <-- |
| US 5795877 | A | 19980818 | US 1996-775586 | 19961231 <-- |
| US 5863536 | A | 19990126 | US 1996-778733 | 19961231 <-- |
| CA 2258589 | A1 | 19971224 | CA 1997-2258589 | 19970616 <-- |
| WO 9748399 | A1 | 19971224 | WO 1997-US11538 | 19970616 <-- |

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AU 726854            B2    20001123
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AU 739443            B2    20011011
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CN 1230889           A     19991006    CN 1997-198122         19970815 <--
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| HU 2000001062 | A2 | 20010528 | HU 2000-1062 | 19970815 | <-- |
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PRIORITY APPLN. INFO.:

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| US 1997-864545 | A | 19970528 |
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| US 1997-900194 | A | 19970725 |
| WO 1997-US14344 | W | 19970815 |
| WO 1997-US14347 | W | 19970815 |
| WO 1997-US14417 | W | 19970815 |

OTHER SOURCE(S): MARPAT 132:161240

AB The disclosure relates to dipeptidase inhibitors, and more particularly, to novel phosphonate derivs., hydroxyphosphinyl derivs., and *phosphoramidate* derivs. that inhibit N-acetylated α-linked acidic dipeptidase (NAALADase) enzyme activity, pharmaceutical compns. comprising such derivs., and methods of using such derivs. to inhibit NAALADase activity, and to treat prostate diseases, especially using the compds.
of the invention for the inhibition of the growth of prostate cancer cells.

REFERENCE COUNT: 78 THERE ARE 78 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 7 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2000:10621 CAPLUS
DOCUMENT NUMBER: *132:59155*
TITLE: Methods of cancer treatment using NAALADase inhibitors
INVENTOR(S): Slusher, Barbara S.; Jackson, Paul F.; Tays, Kevin L.; Maclin, Keith M.
PATENT ASSIGNEE(S): Guilford Pharmaceuticals Inc., USA
SOURCE: U.S., 48 pp., Cont.-in-part of U.S. 5,804,602.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 17
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|---|---|---|---|---|---|
| US 6011021 | A | 20000104 | US 1997-864545 | 19970528 | <-- |
| US 5804602 | A | 19980908 | US 1996-665775 | 19960617 | <-- |
| CA 2257433 | A1 | 19971204 | CA 1997-2257433 | 19970613 | <-- |
| WO 9748409 | A1 | 19971224 | WO 1997-US10149 | 19970613 | <-- |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU | | | | | |
| RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | | |
| AU 9733887 | A | 19980107 | AU 1997-33887 | 19970613 | <-- |
| AU 725455 | B2 | 20001012 | | | |
| CN 1221346 | A | 19990630 | CN 1997-195439 | 19970613 | <-- |
| EP 954295 | A1 | 19991110 | EP 1997-929944 | 19970613 | <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | | |
| BR 9709819 | A | 20000111 | BR 1997-9819 | 19970613 | <-- |
| NZ 333235 | A | 20000623 | NZ 1997-333235 | 19970613 | <-- |
| HU 9903421 | A2 | 20010528 | HU 1999-3421 | 19970613 | <-- |
| HU 9903421 | A3 | 20010828 | | | |
| RU 2218179 | C2 | 20031210 | RU 1999-100712 | 19970613 | <-- |
| US 6025345 | A | 20000215 | US 1997-900194 | 19970725 | <-- |
| ZA 9707087 | A | 19990401 | ZA 1997-7087 | 19970808 | <-- |
| CA 2291258 | A1 | 19981203 | CA 1997-2291258 | 19970815 | <-- |
| WO 9853812 | A1 | 19981203 | WO 1997-US14347 | 19970815 | <-- |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU | | | | | |
| RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | | |
| AU 9739821 | A | 19981230 | AU 1997-39821 | 19970815 | <-- |
| AU 739443 | B2 | 20011011 | | | |
| EP 994707 | A1 | 20000426 | EP 1997-937265 | 19970815 | <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | | |
| US 6071965 | A | 20000606 | US 1997-2147 | 19971231 | <-- |
| MX 9810091 | A | 20000131 | MX 1998-10091 | 19981130 | <-- |
| NO 9805652 | A | 19990209 | NO 1998-5652 | 19981203 | <-- |
| KR 2000016750 | A | 20000325 | KR 1998-710357 | 19981217 | <-- |
| LV 12253 | B | 20000120 | LV 1998-279 | 19990211 | <-- |
| US 6372726 | B1 | 20020416 | US 1999-405842 | 19990927 | <-- |
| US 20020151503 | A1 | 20021017 | US 2002-56079 | 20020128 | <-- |

| PRIORITY APPLN. INFO.: | | |
|---|---|---|
| | US 1996-665775 | A2 19960617 |
| | US 1996-665776 | A2 19960617 |
| | US 1996-718703 | A2 19960927 |
| | US 1996-775586 | A2 19961231 |
| | US 1996-778733 | A2 19961231 |
| | US 1997-825997 | A2 19970404 |
| | US 1997-835572 | A2 19970409 |
| | US 1997-842360 | A2 19970424 |
| | US 1997-858985 | A 19970527 |
| | US 1997-863624 | A2 19970527 |
| | US 1997-864545 | A 19970528 |

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|---|---|---|---|
| | WO 1997-US10149 | W | 19970613 |
| | US 1997-884479 | A2 | 19970627 |
| | US 1997-899319 | A2 | 19970723 |
| | US 1997-900194 | A | 19970725 |
| | WO 1997-US14347 | W | 19970815 |
| | US 1999-405842 | A1 | 19990927 |

OTHER SOURCE(S): MARPAT 132:59155

AB The present disclosure relates to dipeptidase inhibitors, and more particularly, to novel methods of using phosphonate derivs., hydroxyphosphinyl derivs., and *phosphoramidate* derivs. to inhibit N-Acetylated α-Linked Acidic Dipeptidase (NAALADase) enzyme activity, and to treat prostate diseases, especially using the compds. of the present invention for the inhibition of the growth of prostate cancer cells.

REFERENCE COUNT: 91 THERE ARE 91 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 8 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:799990 CAPLUS

DOCUMENT NUMBER: *130:33047*

TITLE: Phosphonate, hydroxyphosphinyl, and *phosphoramidate* inhibitors of N-acetylated α-linked acidic dipeptidase (NAALADase) enzyme activity, preparation thereof, and therapeutic use

INVENTOR(S): Jackson, Paul F.; Slusher, Barbara S.; Tays, Kevin L.; Maclin, Keith M.

PATENT ASSIGNEE(S): Guilford Pharmaceuticals Inc., USA

SOURCE: PCT Int. Appl., 129 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 17

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9853812 | A1 | 19981203 | WO 1997-US14347 | 19970815 <-- |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU | | | | |
| RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| US 6025344 | A | 20000215 | US 1997-858985 | 19970527 <-- |
| US 6046180 | A | 20000404 | US 1997-863624 | 19970527 <-- |
| US 6011021 | A | 20000104 | US 1997-864545 | 19970528 <-- |
| US 6025345 | A | 20000215 | US 1997-900194 | 19970725 <-- |
| CA 2291258 | A1 | 19981203 | CA 1997-2291258 | 19970815 <-- |
| AU 9739821 | A | 19981230 | AU 1997-39821 | 19970815 <-- |
| AU 739443 | B2 | 20011011 | | |
| EP 994707 | A1 | 20000426 | EP 1997-937265 | 19970815 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |

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| PRIORITY APPLN. INFO.: | US 1997-858985 | A | 19970527 |
| | US 1997-863624 | A | 19970527 |
| | US 1997-864545 | A | 19970528 |
| | US 1997-900194 | A | 19970725 |
| | US 1996-665775 | A2 | 19960617 |

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|---|---|---|---|
| | US 1996-665776 | A2 | 19960617 |
| | US 1996-775586 | A2 | 19961231 |
| | US 1996-778733 | A2 | 19961231 |
| | WO 1997-US14347 | W | 19970815 |

OTHER SOURCE(S): MARPAT 130:33047

AB The invention discloses dipeptidase inhibitors, and more particularly, methods of using phosphonate derivs., hydroxyphosphinyl derivs., and *phosphoramidate* derivs. to inhibit N-Acetylated α-Linked Acidic Dipeptidase (NAALADase) enzyme activity, and to treat e.g. prostate diseases, especially inhibition of the growth of prostate cancer cells. Preparation of compds. of the invention is described.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 9 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:28668 CAPLUS

DOCUMENT NUMBER: *128:84389*

ORIGINAL REFERENCE NO.: 128:16337a,16340a

TITLE: Methods of cancer treatment using NAALADase inhibitors

INVENTOR(S): Slusher, Barbara S.; Jackson, Paul F.; Tays, Kevin L.; MacLin, Keith M.

PATENT ASSIGNEE(S): Guilford Pharmaceuticals Inc., USA

SOURCE: PCT Int. Appl., 235 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 17

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9748409 | A1 | 19971224 | WO 1997-US10149 | 19970613 <-- |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU | | | | |
| RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| US 5804602 | A | 19980908 | US 1996-665775 | 19960617 <-- |
| US 6011021 | A | 20000104 | US 1997-864545 | 19970528 <-- |
| AU 9733887 | A | 19980107 | AU 1997-33887 | 19970613 <-- |
| AU 725455 | B2 | 20001012 | | |
| EP 954295 | A1 | 19991110 | EP 1997-929944 | 19970613 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| BR 9709819 | A | 20000111 | BR 1997-9819 | 19970613 <-- |
| NZ 333235 | A | 20000623 | NZ 1997-333235 | 19970613 <-- |
| HU 9903421 | A2 | 20010528 | HU 1999-3421 | 19970613 <-- |
| HU 9903421 | A3 | 20010828 | | |
| RU 2218179 | C2 | 20031210 | RU 1999-100712 | 19970613 <-- |
| MX 9810091 | A | 20000131 | MX 1998-10091 | 19981130 <-- |
| NO 9805652 | A | 19990209 | NO 1998-5652 | 19981203 <-- |

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| PRIORITY APPLN. INFO.: | US 1996-665775 | A | 19960617 |
| | US 1997-864545 | A | 19970528 |
| | WO 1997-US10149 | W | 19970613 |

OTHER SOURCE(S): MARPAT 128:84389

AB Glutamate-derived hydroxyphosphinyl derivs. are claimed as NAALADase

inhibitors for the treatment of cancer. Phosphonate, hydroxyphosphinyl, and *phosphoramidate* derivs. R1P(O)(OH)XCHR2CO2H [R1 = H, alkyl, alkenyl, cycloalkyl, cycloalkenyl, aryl; X = CH2, O, NR1; R2 = alkyl, alkenyl, cycloalkyl, cycloalkenyl, or aryl which may be optionally substituted with carboxylic acid] were prepared In vitro assays of NAALADase inhibitory activities are tabulated for several phosphinyl derivs., e.g., 2-(phosphonomethyl)pentanedioic acid.

L18 ANSWER 10 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:28659 CAPLUS
DOCUMENT NUMBER: *128:70764*
ORIGINAL REFERENCE NO.: 128:13691a,13694a
TITLE: Hydroxy-phosphinyl derivatives useful as NAALADase inhibitors
INVENTOR(S): Jackson, Paul F.; Slusher, Barbara S.; Tays, Kevin L.; MacLin, Keith M.
PATENT ASSIGNEE(S): Guilford Pharmaceuticals Inc., USA
SOURCE: PCT Int. Appl., 166 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 17
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9748400 | A1 | 19971224 | WO 1997-US11540 | 19970616 <-- |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU | | | | |
| RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| US 5672592 | A | 19970930 | US 1996-665776 | 19960617 <-- |
| US 5795877 | A | 19980818 | US 1996-775586 | 19961231 <-- |
| US 5863536 | A | 19990126 | US 1996-778733 | 19961231 <-- |
| US 6046180 | A | 20000404 | US 1997-863624 | 19970527 <-- |
| AU 9735135 | A | 19980107 | AU 1997-35135 | 19970616 <-- |
| EP 936914 | A1 | 19990825 | EP 1997-931529 | 19970616 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| JP 2002514160 | T | 20020514 | JP 1998-503609 | 19970616 <-- |
| ZA 9707086 | A | 19980630 | ZA 1997-7086 | 19970808 <-- |
| ZA 9707085 | A | 19990208 | ZA 1997-7085 | 19970808 <-- |

PRIORITY APPLN. INFO.:

| | | |
|---|---|---|
| US 1996-665776 | A | 19960617 |
| US 1996-775586 | A | 19961231 |
| US 1996-778733 | A | 19961231 |
| US 1997-863624 | A | 19970527 |
| WO 1997-US11540 | W | 19970616 |

OTHER SOURCE(S): MARPAT 128:70764

AB Phosphonate, hydroxyphosphinyl, and *phosphoramidate* derivs. R1P(O)(OH)XCHR2CO2H [R1 = H, alkyl, alkenyl, cycloalkyl, cycloalkenyl, aryl; X = CH2, O, NR1; R2 = (un)substituted alkyl, alkenyl, cycloalkyl, cycloalkenyl, aryl] that inhibit N-acetylated α-linked acidic dipeptidase (NAALADase) enzyme activity were prepared In vitro assays of NAALADase inhibitory activities are tabulated for several phosphinyl derivs., e.g., 2-(phosphonomethyl)pentanedioic acid.

L18 ANSWER 11 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:28658 CAPLUS
DOCUMENT NUMBER: *128:70763*
ORIGINAL REFERENCE NO.: 128:13691a,13694a
TITLE: Certain phosphinyl derivatives useful as NAALADase inhibitors
INVENTOR(S): Jackson, Paul F.; Slusher, Barbara S.; Tays, Kevin L.; MacLin, Keith M.
PATENT ASSIGNEE(S): Guilford Pharmaceuticals Inc., USA
SOURCE: PCT Int. Appl., 153 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 17
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9748399 | A1 | 19971224 | WO 1997-US11538 | 19970616 <-- |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, YU | | | | |
| RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| US 5672592 | A | 19970930 | US 1996-665776 | 19960617 <-- |
| US 5795877 | A | 19980818 | US 1996-775586 | 19961231 <-- |
| US 5863536 | A | 19990126 | US 1996-778733 | 19961231 <-- |
| US 6025344 | A | 20000215 | US 1997-858985 | 19970527 <-- |
| AU 9735906 | A | 19980107 | AU 1997-35906 | 19970616 <-- |
| AU 726854 | B2 | 20001123 | | |
| BR 9709795 | A | 19990810 | BR 1997-9795 | 19970616 <-- |
| EP 957924 | A1 | 19991124 | EP 1997-932448 | 19970616 <-- |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| HU 9902636 | A2 | 20010428 | HU 1999-2636 | 19970616 <-- |
| JP 2002514157 | T | 20020514 | JP 1998-501902 | 19970616 <-- |
| ZA 9707086 | A | 19980630 | ZA 1997-7086 | 19970808 <-- |
| ZA 9707085 | A | 19990208 | ZA 1997-7085 | 19970808 <-- |
| MX 9810089 | A | 20000131 | MX 1998-10089 | 19981130 <-- |
| NO 9805874 | A | 19990215 | NO 1998-5874 | 19981215 <-- |

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|---|---|---|---|
| PRIORITY APPLN. INFO.: | US 1996-665776 | A | 19960617 |
| | US 1996-775586 | A | 19961231 |
| | US 1996-778733 | A | 19961231 |
| | US 1997-858985 | A | 19970527 |
| | WO 1997-US11538 | W | 19970616 |

OTHER SOURCE(S): MARPAT 128:70763
AB Phosphonate, hydroxyphosphinyl, and *phosphoramidate* derivs. R1P(O)(OH)XCHR2CO2H (R1 = H, alkyl, alkenyl, cycloalkyl, cycloalkenyl, aryl; X = CH2, O, NR1; R2 = alkyl, alkenyl, cycloalkyl, cycloalkenyl, or aryl which is substituted by carboxylic acid) that inhibit N-acetylated α-linked acidic dipeptidase (NAALADase) enzyme activity were prepared In vitro assays of NAALADase inhibitory activities are tabulated for several phosphinyl derivs., e.g., 2-(phosphonomethyl)pentanedioic acid.
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 12 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1997:650356 CAPLUS
DOCUMENT NUMBER: *127:307622*
ORIGINAL REFERENCE NO.: 127:60177a,60180a
TITLE: Preparation and MALDI-TOF mass spectra of of dinucleotide and oligodeoxyribonucleotide analogs
INVENTOR(S): Baxter, Anthony David; Baylis, Eric Keith; Collingwood, Stephen Paul; Fairhurst, Robin Alec; Taylor, Roger John
PATENT ASSIGNEE(S): Novartis A.-G., Switz.
SOURCE: PCT Int. Appl., 142 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9735869 | A1 | 19971002 | WO 1997-GB651 | 19970311 <-- |
| W: AL, AU, BA, BB, BG, BR, CA, CN, CU, CZ, EE, GE, GH, HU, IL, IS, JP, KP, KR, LC, LK, LR, LT, LV, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| AU 9721031 | A | 19971017 | AU 1997-21031 | 19970311 <-- |
| ZA 9702435 | A | 19971118 | ZA 1997-2435 | 19970320 <-- |
| US 6087490 | A | 20000711 | US 1998-155198 | 19981008 <-- |

PRIORITY APPLN. INFO.: GB 1996-6158 A 19960323
WO 1997-GB651 W 19970311
OTHER SOURCE(S): MARPAT 127:307622
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Preparation and MALDI-TOF (matrix assisted laser desorption time-of-light) mass spectra of dinucleotide and oligodeoxyribonucleotide analogs I (B1 and B2 are independently nucleobase; R1 = H, hydroxy protecting group; R2 and R3 are independently H, halogen, OH, alkoxy; R4 = H, hydroxy protecting group, *phosphoramidyl*; R5 = H, halogen, alkyl; R6 = H, *phosphoramidyl*, hydroxy protecting group; Z = substituted chain containing carbon, nitrogen, and phosphorus) are reported. Thus, TTTRCTCTCTCTCT was prepared and its MALDI-TOF mass spectra is reported.

L18 ANSWER 13 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:738120 CAPLUS
DOCUMENT NUMBER: *126:19177*
ORIGINAL REFERENCE NO.: 126:3985a,3988a
TITLE: Preparation of amino acid-containing nucleotide analogs as virucides
INVENTOR(S): Mcguigan, Christopher; Balzarini, Jan
PATENT ASSIGNEE(S): Medical Research Council, UK; University College Cardiff Consultants Ltd.; Rega Foundation
SOURCE: PCT Int. Appl., 70 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| WO 9629336 | A1 | 19960926 | WO 1996-GB580 | 19960313 <-- |
| W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI | | | | |
| RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN | | | | |
| CA 2215190 | A1 | 19960926 | CA 1996-2215190 | 19960313 <-- |
| AU 9650094 | A | 19961008 | AU 1996-50094 | 19960313 <-- |
| AU 707196 | B2 | 19990708 | | |
| EP 820461 | A1 | 19980128 | EP 1996-906832 | 19960313 <-- |
| EP 820461 | B1 | 20050518 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| JP 11506419 | T | 19990608 | JP 1996-528160 | 19960313 <-- |
| AT 295849 | T | 20050615 | AT 1996-906832 | 19960313 |
| PT 820461 | T | 20050930 | PT 1996-906832 | 19960313 |
| ES 2242965 | T3 | 20051116 | ES 1996-906832 | 19960313 |
| US 6455513 | B1 | 20020924 | US 1999-382084 | 19990824 <-- |
| US 20030120071 | A1 | 20030626 | US 2002-216940 | 20020812 <-- |
| US 7018989 | B2 | 20060328 | | |

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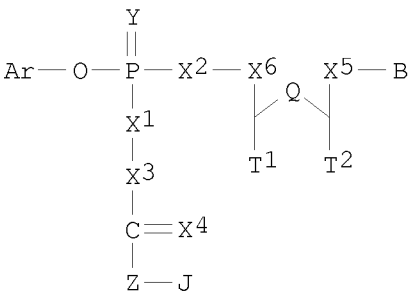
|---|---|---|---|
| PRIORITY APPLN. INFO.: | GB 1995-5025 | A | 19950313 |
| | WO 1996-GB580 | W | 19960313 |
| | US 1998-913639 | B1 | 19980202 |
| | US 1999-382084 | A1 | 19990824 |

OTHER SOURCE(S): MARPAT 126:19177
GI



I

AB Title amino acid-containing nucleotides I (Ar = aryl; Y = O, S; X1,X2 = O, S, aminoalkyl, alkyl; X3 = alkyl; X4 = CH2, O; X5,X6 = bond, CH2; Z = O, aminoalkyl, S, alkyl, aryl; J = H, alkyl, aryl, heterocyclic, polycyclic) were prepared as virucides. Thus, 2',3'-dideoxy-2',3'-didehydrothymidine 5'-(phenyl-N-methoxyalaninyl) *phosphoramidate* was prepared and tested for its antiviral activity.

L18 ANSWER 14 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:996995 CAPLUS
DOCUMENT NUMBER: *124:176531*

ORIGINAL REFERENCE NO.: 124:32755a,32758a
TITLE: Preparation of *phosphoramides* from amines, amino acids, and peptides in aqueous system
INVENTOR(S): Zhao, Yufeng; Yin, Yingwu
PATENT ASSIGNEE(S): Qinghua University, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| CN 1093368 | A | 19941012 | CN 1993-112816 | 19931224 <-- |

PRIORITY APPLN. INFO.: CN 1993-112816 19931224
OTHER SOURCE(S): MARPAT 124:176531
AB Title compds. (R1O)(R2O)P(O)NR3R4 (R1, R2 = alkyl; R3, R4 = alkyl, amino acid, or peptide residue) are prepared by reaction of (R1O)(R2O)P(O)H with R3R4NH in H2O-alc.-base-CCl4. The mixed solvents facilitate the dissoln. of reactants. The base neutralizes the HCl formed for easy isolation of the products.

L18 ANSWER 15 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1991:449977 CAPLUS
DOCUMENT NUMBER: *115:49977*
ORIGINAL REFERENCE NO.: 115:8693a,8696a
TITLE: Preparation of (fluoroalkylthio)phosphates, -*phosphoramides*, etc., as pesticides
INVENTOR(S): Sommer, Herbert; Boehm, Stefan; Bielefeldt, Dietmar; Hartwig, Juergen; Stendel, Wilhelm
PATENT ASSIGNEE(S): Bayer A.-G., Germany
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DE 3930409 | A1 | 19910314 | DE 1989-3930409 | 19890912 <-- |
| EP 417558 | A2 | 19910320 | EP 1990-116628 | 19900830 <-- |
| EP 417558 | A3 | 19920603 | | |
| R: BE, CH, DE, FR, GB, IT, LI, NL | | | | |
| JP 03106892 | A | 19910507 | JP 1990-235960 | 19900907 <-- |

PRIORITY APPLN. INFO.: DE 1989-3930409 A 19890912
OTHER SOURCE(S): CASREACT 115:49977; MARPAT 115:49977
AB R3R4R5CCFR2SP(Y)RR1 [R = (substituted) alkyl, alkenyl, OR6; R6 = (substituted) alkyl, alkenyl, alkynyl; R1 = SR7, NR8R9; R7 = (substituted) alkyl, cycloalkyl, alkenyl, alkynyl; R8, R9 = H, R7; R2 - R5 = H, halo, alkyl; Y = O, S], were prepared Thus, (EtO)2P(O)SCHEtMe in CH2Cl2 at -78° was treated with MeF2CCl in CH2Cl2 and the mixture was stirred 16 h at room temperature to give 39% MeCF2SP(O)(OEt)SCHMeEt. The latter at 20 ppm gave 100% control of Phorbia antiqua in soil.

L18 ANSWER 16 OF 16 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1983:179639 CAPLUS
DOCUMENT NUMBER: *98:179639*

ORIGINAL REFERENCE NO.: 98:27315a,27318a
TITLE: Phosphoro(di- or tri- )thioate derivatives, pesticidal compositions containing them and their use for combating pests
INVENTOR(S): Smolanoff, Joel Robert; Fitzpatrick, Joseph Michael; Ollinger, Jeanet
PATENT ASSIGNEE(S): Rohm and Haas Co., USA
SOURCE: Eur. Pat. Appl., 87 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| EP 68823 | A1 | 19830105 | EP 1982-303297 | 19820624 <-- |
| EP 68823 | B1 | 19880504 | | |
| R: AT, BE, CH, DE, FR, GB, IT, LI, SE | | | | |
| CA 1211119 | A1 | 19860909 | CA 1982-405261 | 19820616 <-- |
| JP 58038293 | A | 19830305 | JP 1982-108248 | 19820623 <-- |
| JP 03054114 | B | 19910819 | | |
| BR 8203659 | A | 19830621 | BR 1982-3659 | 19820623 <-- |
| AU 8285312 | A | 19830106 | AU 1982-85312 | 19820624 <-- |
| ZA 8204486 | A | 19830427 | ZA 1982-4486 | 19820624 <-- |
| EP 139156 | A1 | 19850502 | EP 1984-109926 | 19820624 <-- |
| EP 139156 | B1 | 19890531 | | |
| R: AT, BE, CH, DE, FR, GB, IT, LI, SE | | | | |
| IL 66135 | A | 19860930 | IL 1982-66135 | 19820624 <-- |
| AT 33986 | T | 19880515 | AT 1982-303297 | 19820624 <-- |

PRIORITY APPLN. INFO.: US 1981-276780 A 19810624
EP 1982-303297 P 19820624

OTHER SOURCE(S): MARPAT 98:179639

AB R-X-P(:X1)(SR1)NR2C(:X2)R3 [R = alkenyl, alkynyl, (un)substituted alkyl, Ph; R1 = alkenyl, alkynyl, cycloalkyl, heterocycle, (un)substituted alkyl, Ph; R2 = H, alkynyl, (un)substituted alkyl, alkenyl, Ph, naphthyl; R3 = H, Me, F3C, alkoxycarbonyl, alkoxythiocarbonyl; X, X1, X2 = 0, S] were prepared Thus, EtOP(S)(NHEt)SCHMeEt was treated with HCO2Ac to yield 88% EtOP(S)(SCHMeEt)NEtCHO (I). At 600 ppm in a foliar spray I gave 100% control of Tetranychus urticae and 98% control of Myzus persicae. It gave nearly total control of Meloidogyne incognita at 150 ppm in the soil.

=> d his

(FILE 'HOME' ENTERED AT 16:23:47 ON 30 DEC 2008)

FILE 'REGISTRY' ENTERED AT 16:24:03 ON 30 DEC 2008
L1 SCREEN 1942 AND 1992 AND 2006 AND 2016
L2 STRUCTURE UPLOADED
L3 QUE L2 AND L1
L4 0 S L3 SSS SAM
L5 0 S L2 SSS SAM

FILE 'REGISTRY' ENTERED AT 16:27:13 ON 30 DEC 2008
L6 SCREEN 1942 AND 1992 AND 2006 AND 2016
L7 STRUCTURE UPLOADED
L8 QUE L7 AND L6
L9 0 S L8 SSS SAM

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L10           0 S L7 SSS SAM
L11           5 S L7 SSS FULL

     FILE 'CAPLUS' ENTERED AT 16:28:19 ON 30 DEC 2008
L12           4 S L11
L13           1 S L12 AND PY<=2004

     FILE 'MARPAT' ENTERED AT 16:29:09 ON 30 DEC 2008
L14          19 S L11 SSS SAM
L15         319 S L11 SSS FULL

     FILE 'CAPLUS' ENTERED AT 16:29:51 ON 30 DEC 2008
L16         319 S L15
L17         243 S L16 AND PY<=2004
L18          16 S L17 AND PHOSPHORAM?

=> d l17

L17  ANSWER 1 OF 243  CAPLUS  COPYRIGHT 2008 ACS on STN
AN   2008:120793  CAPLUS
DN   148:191863
TI   Preparation of 1-benzazocine-5-carboxamides and related bicyclic compounds
     as CCR-5 antagonists for use against HIV infectious and other diseases
IN   Baba, Masanori; Seto, Masaki; Kanzaki, Naoyuki; Aikawa, Katsuji; Iizawa,
     Yuji; Shiraishi, Mitsuru
PA   Takeda Pharmaceutical Company Limited, Japan
SO   Can. Pat. Appl., 288pp.
     CODEN: CPXXEB
DT   Patent
LA   English
FAN.CNT 3
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   CA 2607992           A1    20030220    CA 2002-2607992        20020807 <--
     CA 2459172           A1    20030220    CA 2002-2459172        20020807 <--
     EP 1889839           A1    20080220    EP 2007-21230          20020807
         R:  AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT,
             LI, LU, MC, NL, PT, SE, SK, TR
     JP 2007084578        A     20070405    JP 2006-355701         20061228
PRAI JP 2001-240750       A     20010808
     JP 2002-66809        A     20020312
     CA 2002-2459172      A3    20020807
     EP 2002-762751       A3    20020807
     JP 2002-229532       A3    20020807
     WO 2002-JP8043       W     20020807
OS   MARPAT 148:191863


=> d l7
L7 HAS NO ANSWERS
L7              STR
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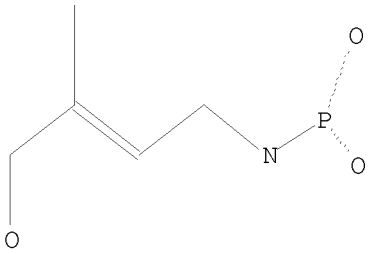


Structure attributes must be viewed using STN Express query preparation.

=> logoff hold

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|---|---|---|
| FULL ESTIMATED COST | 53.45 | 333.22 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | -12.80 | -16.00 |

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 16:31:39 ON 30 DEC 2008

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssptajsl1623

PASSWORD:
* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 17:21:14 ON 30 DEC 2008
FILE 'CAPLUS' ENTERED AT 17:21:14 ON 30 DEC 2008
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 53.45 | 333.22 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | -12.80 | -16.00 |

=> b reg

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 53.45 | 333.22 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | -12.80 | -16.00 |

FILE 'REGISTRY' ENTERED AT 17:21:25 ON 30 DEC 2008


Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:  29 DEC 2008  HIGHEST RN 1091682-77-7
DICTIONARY FILE UPDATES:  29 DEC 2008  HIGHEST RN 1091682-77-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

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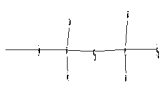
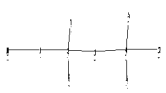
Uploading C:\Documents and Settings\jlau1\My Documents\10581144 - HDMAPP\genus3.str





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1  2  3  4  5  6  7  8  10  12
chain bonds :
1-2  1-10  2-3  2-7  2-8  3-4  4-5  4-6  4-12
exact/norm bonds :
1-2  1-10  2-3  2-7  2-8  3-4  4-5  4-6  4-12

G1:O,N

G2:C,O,N

Match level :
1:CLASS  2:CLASS  3:CLASS  4:CLASS  5:CLASS  6:CLASS  7:CLASS  8:CLASS  10:CLASS
12:CLASS

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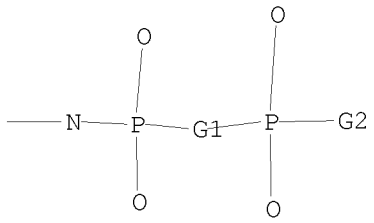
L19             STR




G1 O,N

G2 C,O,N

Structure attributes must be viewed using STN Express query preparation.

=> s l19 sss sam
SAMPLE SEARCH INITIATED 17:21:43 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -       69 TO ITERATE

100.0% PROCESSED       69 ITERATIONS                                22 ANSWERS
SEARCH TIME: 00.00.01

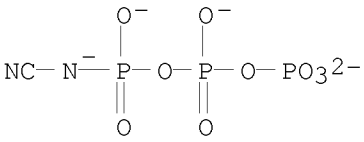
FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          882 TO     1878
PROJECTED ANSWERS:             159 TO      721

L20          22 SEA SSS SAM L19

=> d l20 scan

L20  22 ANSWERS   REGISTRY  COPYRIGHT 2008 ACS on STN
IN   P-Amidotriphosphoric acid, N-cyano-, ion(5-) (9CI)

MF C N2 O9 P3

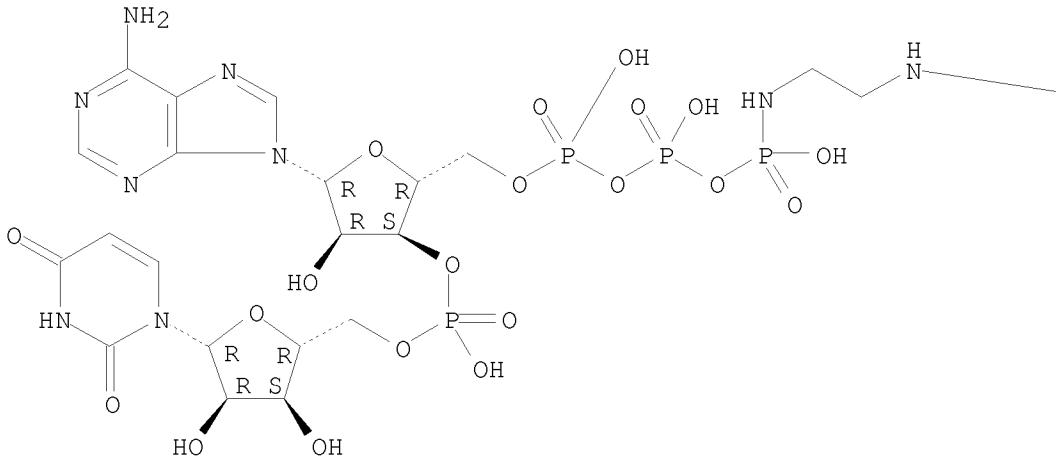


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

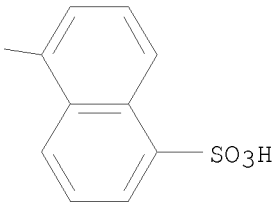
L20 22 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Uridine, 5'-O-[hydroxy[[hydroxy[[hydroxy[[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]amino]phosphinyl]oxy]phosphinyl]oxy]phosphinyl]adenylyl-(3'→5')- (9CI)
MF C31 H39 N9 O23 P4 S

Absolute stereochemistry.

PAGE 1-A



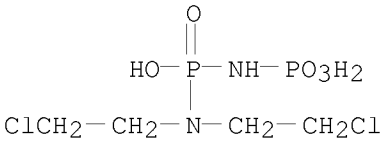
PAGE 1-B



**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L20  22 ANSWERS  REGISTRY  COPYRIGHT 2008 ACS on STN
IN  Phosphoramidic acid, [[bis(2-chloroethyl)amino]hydroxyphosphinyl]- (9CI)
MF  C4 H12 Cl2 N2 O5 P2



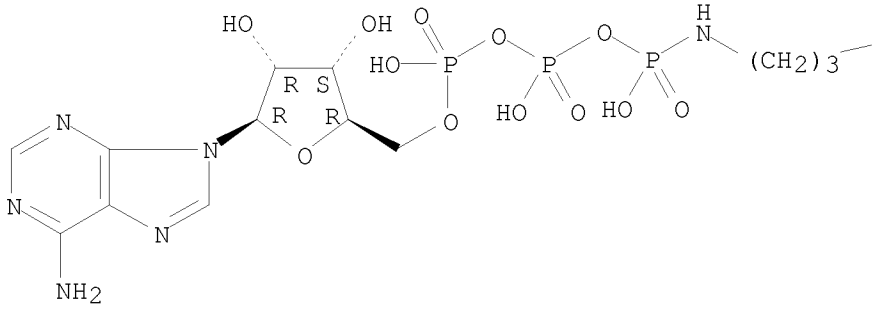
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

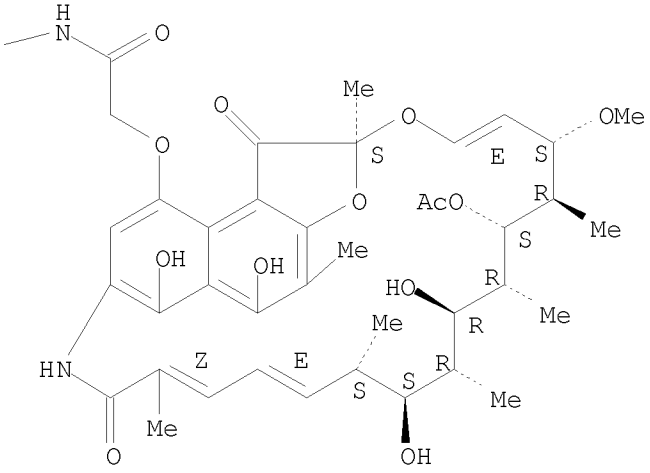
L20  22 ANSWERS  REGISTRY  COPYRIGHT 2008 ACS on STN
IN  Rifamycin, 4-O-[10-(5'-adenylyloxy)-8,10-dihydroxy-8,10-dioxido-2-oxo-9-oxa-3,7-diaza-8,10-diphosphadec-1-yl]- (9CI)
MF  C52 H71 N8 O25 P3

Absolute stereochemistry.
Double bond geometry as described by E or Z.

PAGE 1-A



PAGE 1-B



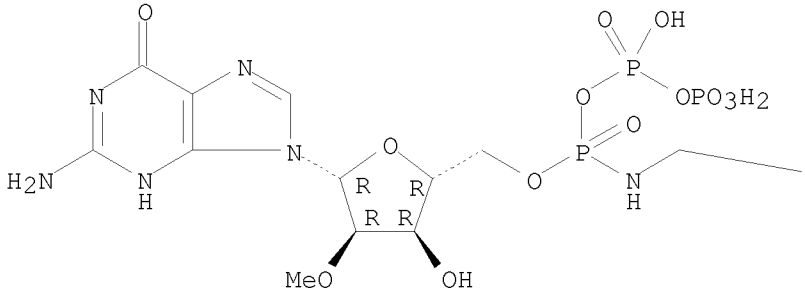
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

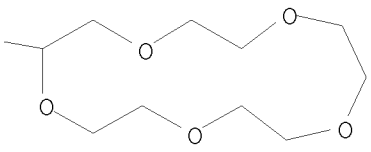
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L20 22 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Guanosine, 2'-O-methyl-, 5'-[hydrogen (1,4,7,10,13-pentaoxacyclopentadec-2-ylmethyl)phosphoramidate], monoanhydride with diphosphoric acid (9CI)
MF C22 H39 N6 O18 P3

Absolute stereochemistry.

PAGE 1-A





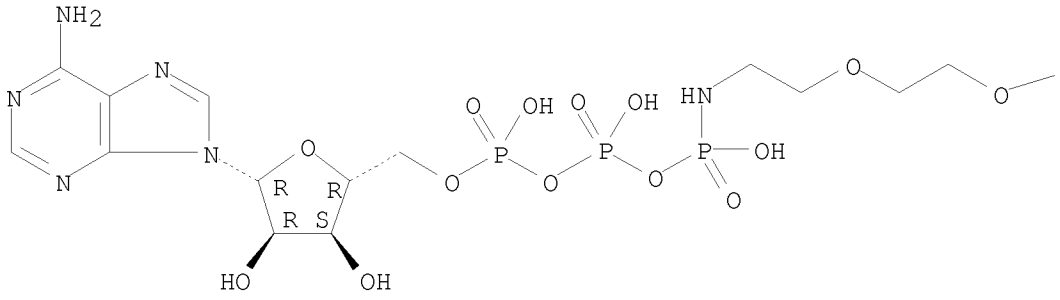
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

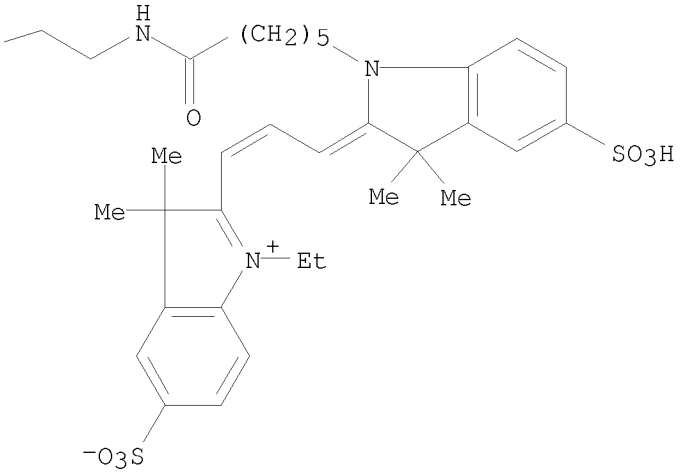
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L20 22 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Adenosine 5'-(trihydrogen diphosphate), P'→P-anhydride with 2-[3-[1-(17,17-dihydroxy-17-oxido-6-oxo-10,13-dioxa-7,16-diaza-17-phosphaheptadec-1-yl)-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-3H-indolium inner salt
MF C47 H66 N9 O21 P3 S2

Absolute stereochemistry.
Double bond geometry unknown.



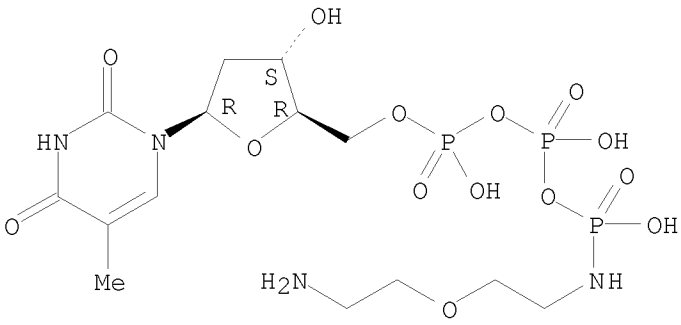




HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L20  22 ANSWERS  REGISTRY  COPYRIGHT 2008 ACS on STN
IN  Thymidine 5'-(trihydrogen diphosphate), P'-anhydride with N-[2-(2-aminoethoxy)ethyl]phosphoramidic acid
MF  C14 H27 N4 O14 P3

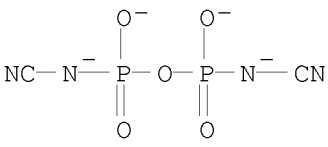
Absolute stereochemistry.



**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L20  22 ANSWERS  REGISTRY  COPYRIGHT 2008 ACS on STN
IN  P,P'-Diamidodiphosphoric acid, N,N'-dicyano-, ion(4-) (9CI)
MF  C2 N4 O5 P2

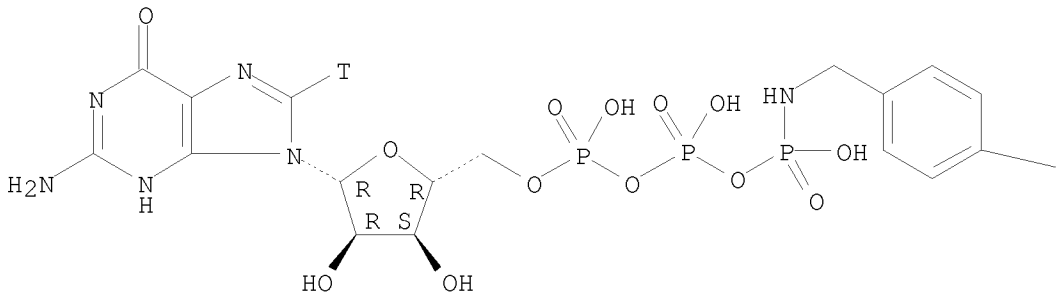


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

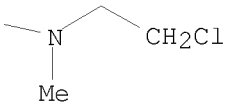
L20 22 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Guanosine-8-t 5'-(trihydrogen diphosphate), monoanhydride with [[4-[(2-chloroethyl)methylamino]phenyl]methyl]phosphoramidic acid (9CI)
MF C20 H28 Cl N7 O13 P3 T

Absolute stereochemistry.

PAGE 1-A



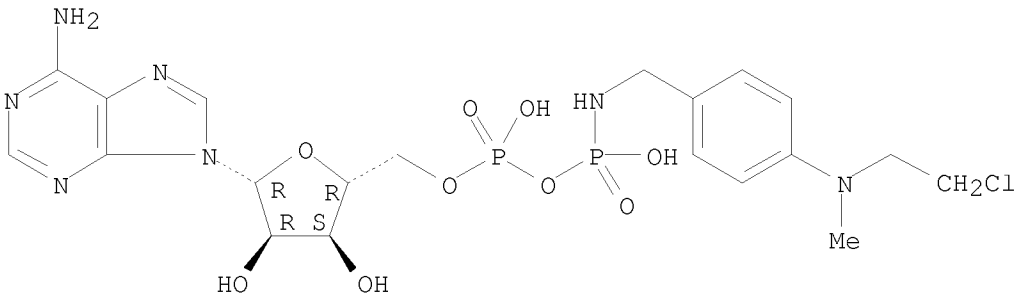
PAGE 1-B



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L20 22 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN 5'-Adenylic acid, monoanhydride with [[4-[(2-chloroethyl)methylamino]phenyl]methyl]phosphoramidic acid, dilithium salt (9CI)
MF C20 H28 Cl N7 O9 P2 . 2 Li

Absolute stereochemistry.



●2 Li

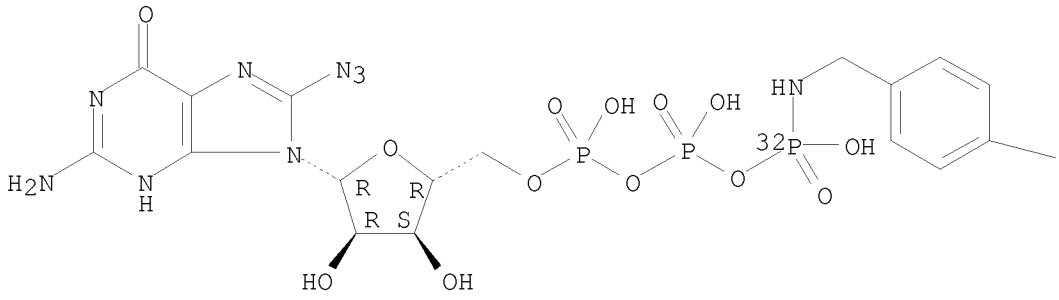
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L20 22 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Guanosine 5'-(trihydrogen diphosphate), 8-azido-, P'-anhydride with [(4-benzoylphenyl)methyl]phosphoramidic-32P acid, compd. with N,N-diethylethanamine (1:3) (9CI)
MF C24 H26 N9 O14 P3 . 3 C6 H15 N

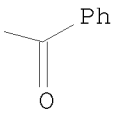
CM 1

Absolute stereochemistry.

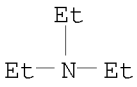
PAGE 1-A



PAGE 1-B



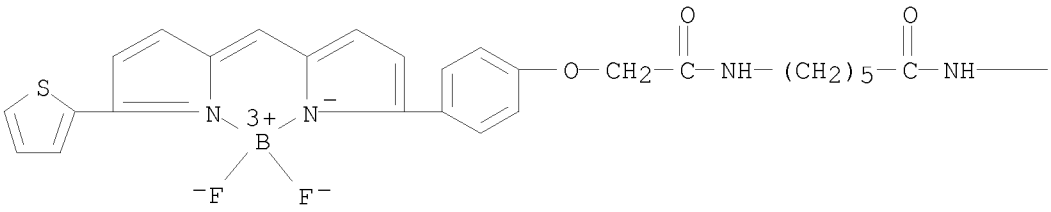
CM 2



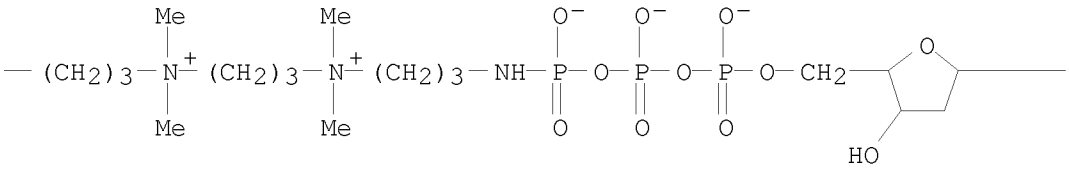
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L20 22 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Borate(1-), difluoro[5'→P''-[[4,4,8,8-tetramethyl-13,20-dioxo-21-[4-[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-κN]methyl]-1H-pyrrol-2-yl-κN]phenoxy]-12,19-diaza-4,8-diazoniaheneicos-1-yl]-P-amidotriphosphate] 2'-deoxyguanosinato(4-)]-, hydrogen, (T-4)- (9CI)
MF C50 H69 B F2 N12 O15 P3 S . H
CI CCS

PAGE 1-A



PAGE 1-B



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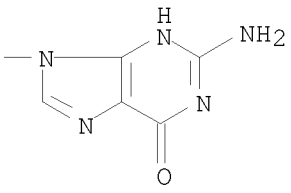


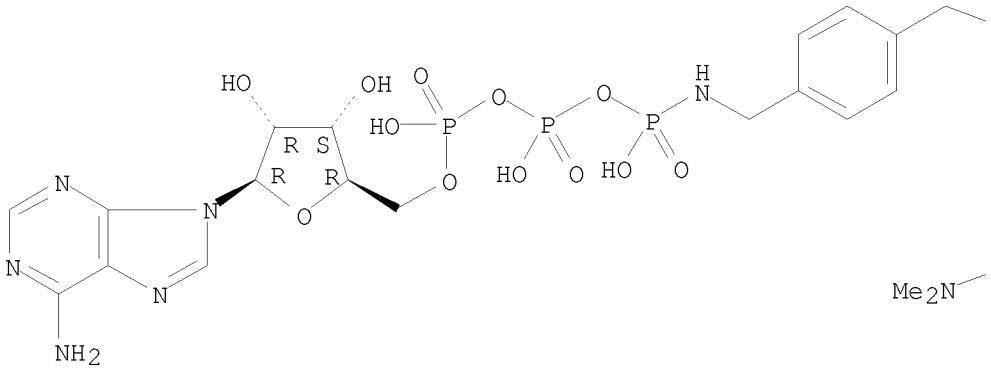
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L20 22 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Adenosine 5'-(trihydrogen diphosphate), P'→P-anhydride with

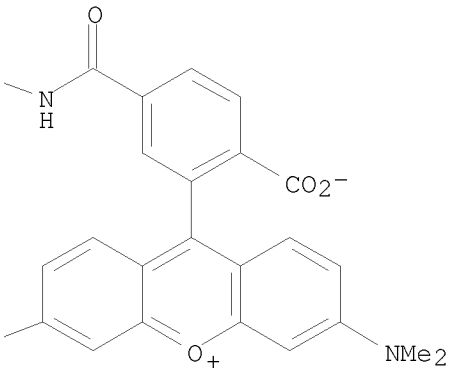
9-[2-carboxy-5-[[[[4-[(phosphonoamino)methyl]phenyl]methyl]amino]carbonyl]
phenyl]-3,6-bis(dimethylamino)xanthylium inner salt
MF C43 H46 N9 O16 P3

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

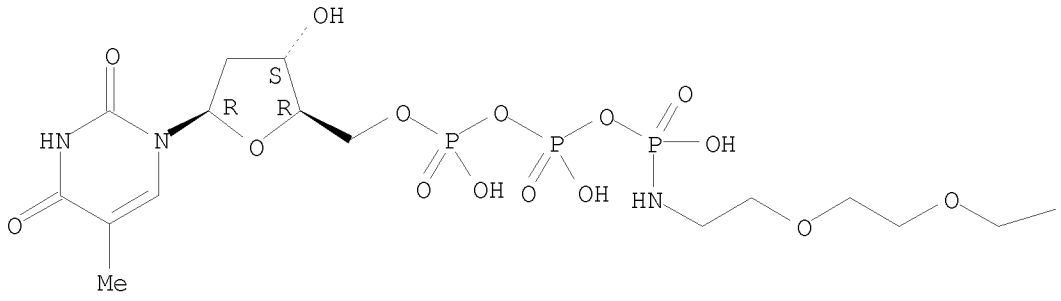


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L20 22 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Thymidine 5'-(trihydrogen diphosphate), P'-anhydride with
N-[2-[2-(2-aminoethoxy)ethoxy]ethyl]phosphoramidic acid
MF C16 H31 N4 O15 P3

Absolute stereochemistry.

PAGE 1-A



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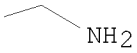
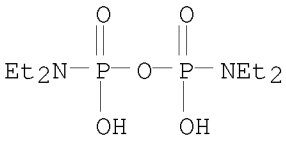


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L20 22 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN P,P'-Diamidodiphosphoric acid, N,N,N',N'-tetraethyl- (9CI)
MF C8 H22 N2 O5 P2
CI COM

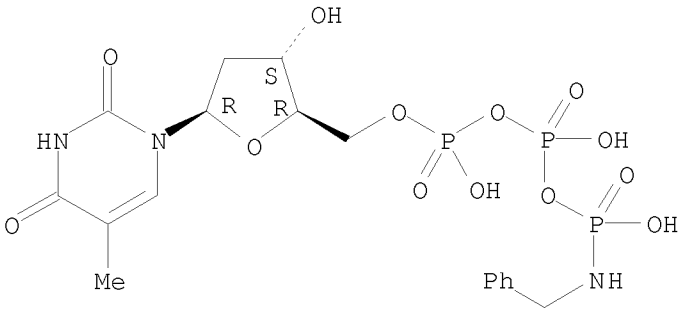


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L20 22 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Thymidine 5'-(trihydrogen diphosphate), monoanhydride with (phenylmethyl)phosphoramidic acid (9CI)
MF C17 H24 N3 O13 P3

Absolute stereochemistry.



**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> b stng

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 1.38 | 334.60 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | 0.00 | -16.00 |

FILE 'STNGUIDE' ENTERED AT 17:23:29 ON 30 DEC 2008
USE IS SUBJECT TO THE TERMS OF YOUR CUSTOMER AGREEMENT
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 19, 2008 (20081219/UP).

=> b reg

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.06 | 334.66 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | 0.00 | -16.00 |

FILE 'REGISTRY' ENTERED AT 17:23:57 ON 30 DEC 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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STRUCTURE FILE UPDATES: 29 DEC 2008 HIGHEST RN 1091682-77-7
DICTIONARY FILE UPDATES: 29 DEC 2008 HIGHEST RN 1091682-77-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

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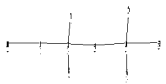
Uploading C:\Documents and Settings\jlau1\My Documents\10581144 - HDMAPP\genus4.str



chain nodes :
1 2 3 4 5 6 7 8 10 12
chain bonds :
1-2 1-10 2-3 2-7 2-8 3-4 4-5 4-6 4-12
exact/norm bonds :
1-2 1-10 2-3 2-7 2-8 3-4 4-5 4-6 4-12

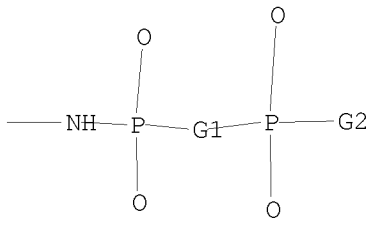
G1:O,N

G2:C,O,N

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 10:CLASS
12:CLASS

L21 STRUCTURE UPLOADED

=> d l21
L21 HAS NO ANSWERS
L21 STR




G1 O,N

G2 C,O,N

Structure attributes must be viewed using STN Express query preparation.

=> s l21 sss sam
SAMPLE SEARCH INITIATED 17:24:14 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 69 TO ITERATE

100.0% PROCESSED 69 ITERATIONS 19 ANSWERS
SEARCH TIME: 00.00.01

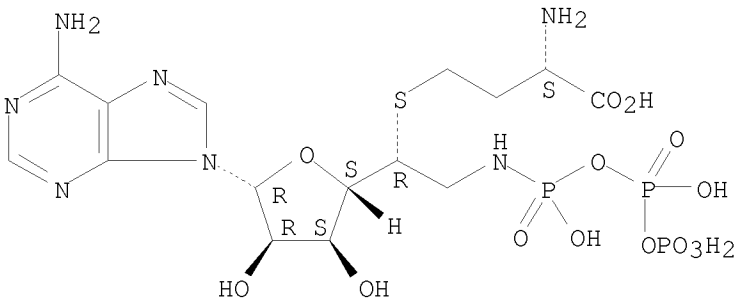
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 882 TO 1878
PROJECTED ANSWERS: 119 TO 641

L22 19 SEA SSS SAM L21

=> d l22 scan

L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN 9H-Purin-6-amine, 9-[5-S-(3-amino-3-carboxypropyl)-6-deoxy-6-
[[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]amino]-5-thio-
β-D-allofuranosyl]-, tetrasodium salt, (S)- (9CI)
MF C15 H26 N7 O14 P3 S . 4 Na

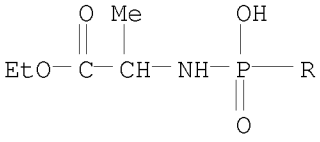
Absolute stereochemistry.

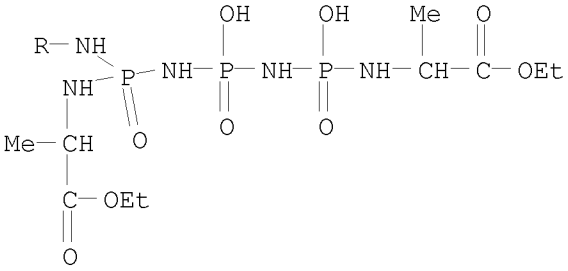


●4 Na

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN 3,5,7,9,11-Pentaaza-4,6,8,10-tetraphosphatridecanedioic acid, 6-[(2-ethoxy-1-methyl-2-oxoethyl)amino]-4,8,10-trihydroxy-2,12-dimethyl-, diethyl ester, 4,6,8,10-tetraoxide, stereoisomer (9CI)
MF C15 H36 N6 O13 P4





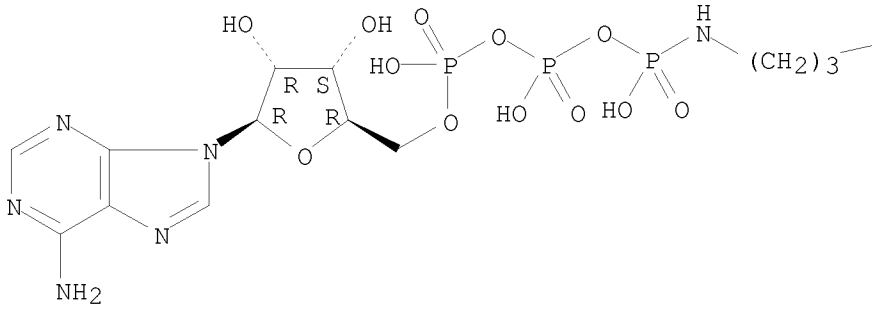
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

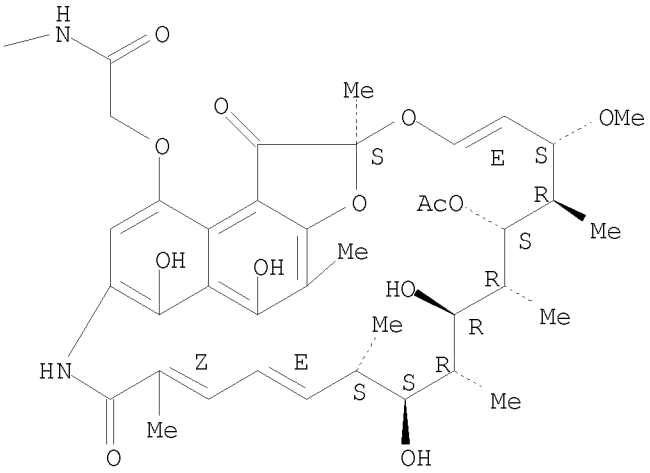
L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Rifamycin, 4-O-[10-(5'-adenylyloxy)-8,10-dihydroxy-8,10-dioxido-2-oxo-9-oxa-3,7-diaza-8,10-diphosphadec-1-yl]- (9CI)
MF C52 H71 N8 O25 P3

Absolute stereochemistry.
Double bond geometry as described by E or Z.

PAGE 1-A



PAGE 1-B

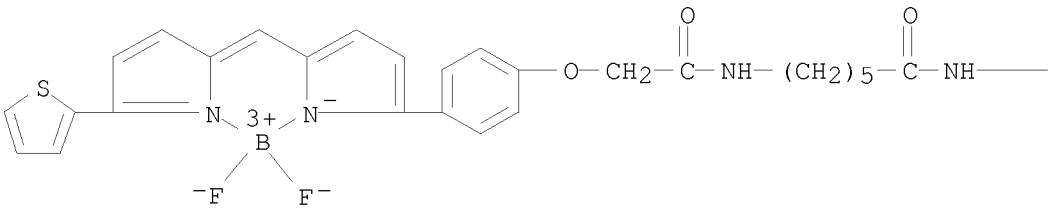


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

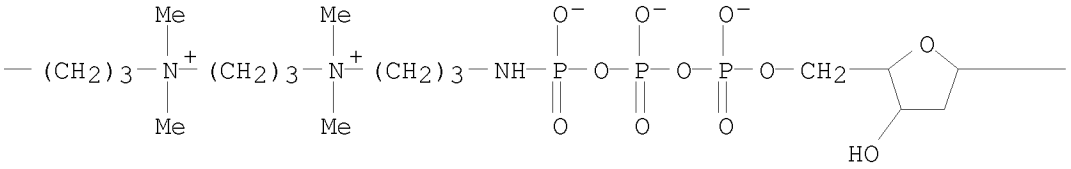
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Borate(1-), difluoro[5'→P''-[[4,4,8,8-tetramethyl-13,20-dioxo-21-[4-[5-[[5-(2-thienyl)-2H-pyrrol-2-ylidene-κN]methyl]-1H-pyrrol-2-yl-κN]phenoxy]-12,19-diaza-4,8-diazoniaheneicos-1-yl]-P-amidotriphosphate] 2'-deoxyguanosinato(4-)]-, hydrogen, (T-4)- (9CI)
MF C50 H69 B F2 N12 O15 P3 S . H
CI CCS

PAGE 1-A



PAGE 1-B



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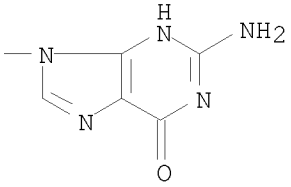
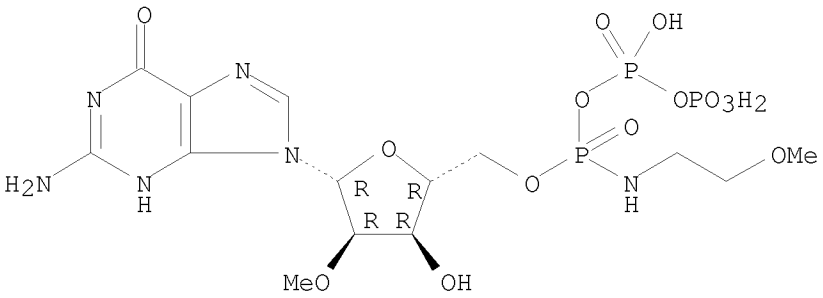


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Guanosine, 2'-O-methyl-, 5'-[hydrogen (2-methoxyethyl)phosphoramidate], monoanhydride with diphosphoric acid (9CI)
MF C14 H25 N6 O14 P3

Absolute stereochemistry.



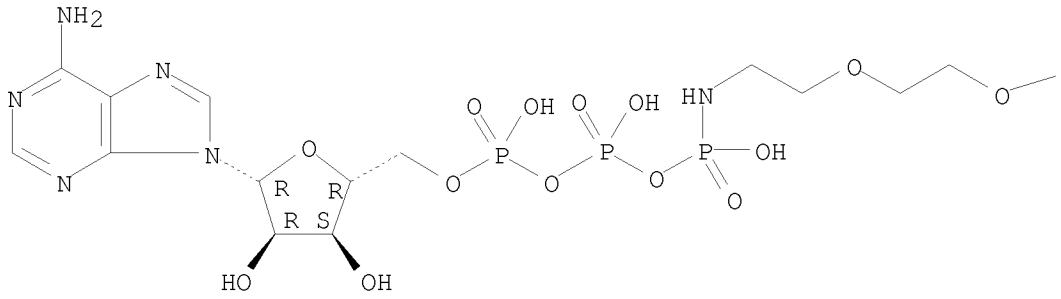
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

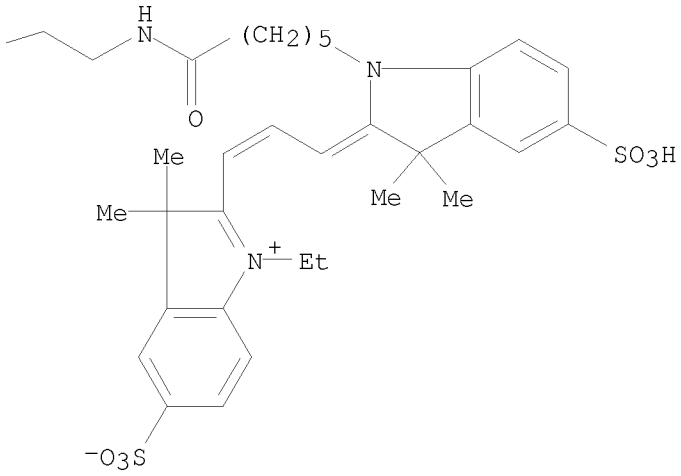
L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Adenosine 5'-(trihydrogen diphosphate), P'→P-anhydride with 2-[3-[1-(17,17-dihydroxy-17-oxido-6-oxo-10,13-dioxa-7,16-diaza-17-phosphaheptadec-1-yl)-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propen-1-yl]-1-ethyl-3,3-dimethyl-5-sulfo-3H-indolium inner salt
MF C47 H66 N9 O21 P3 S2

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



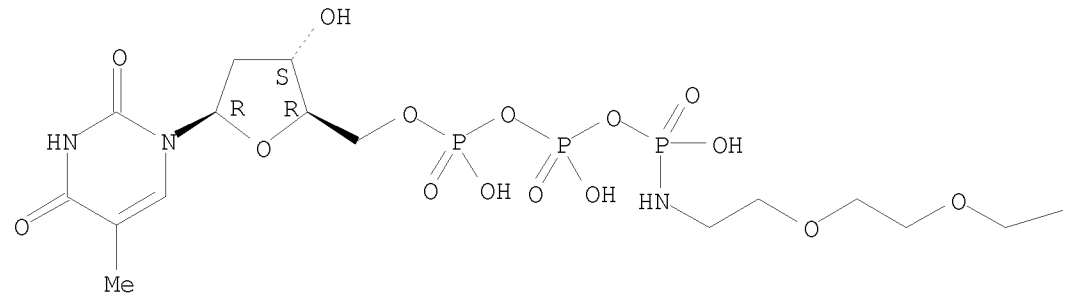
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Thymidine 5'-(trihydrogen diphosphate), P'-anhydride with N-[2-[2-(2-aminoethoxy)ethoxy]ethyl]phosphoramidic acid

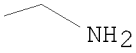
MF  C16 H31 N4 O15 P3

Absolute stereochemistry.

PAGE 1-A



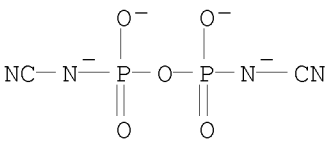
PAGE 1-B



**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

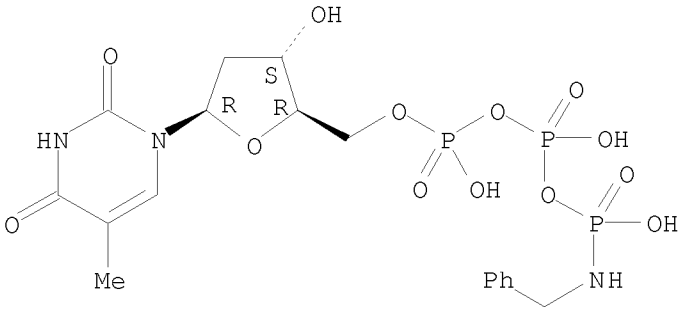
L22  19 ANSWERS  REGISTRY  COPYRIGHT 2008 ACS on STN
IN  P,P'-Diamidodiphosphoric acid, N,N'-dicyano-, ion(4-) (9CI)
MF  C2 N4 O5 P2



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L22  19 ANSWERS  REGISTRY  COPYRIGHT 2008 ACS on STN
IN  Thymidine 5'-(trihydrogen diphosphate), monoanhydride with
    (phenylmethyl)phosphoramidic acid (9CI)
MF  C17 H24 N3 O13 P3

Absolute stereochemistry.



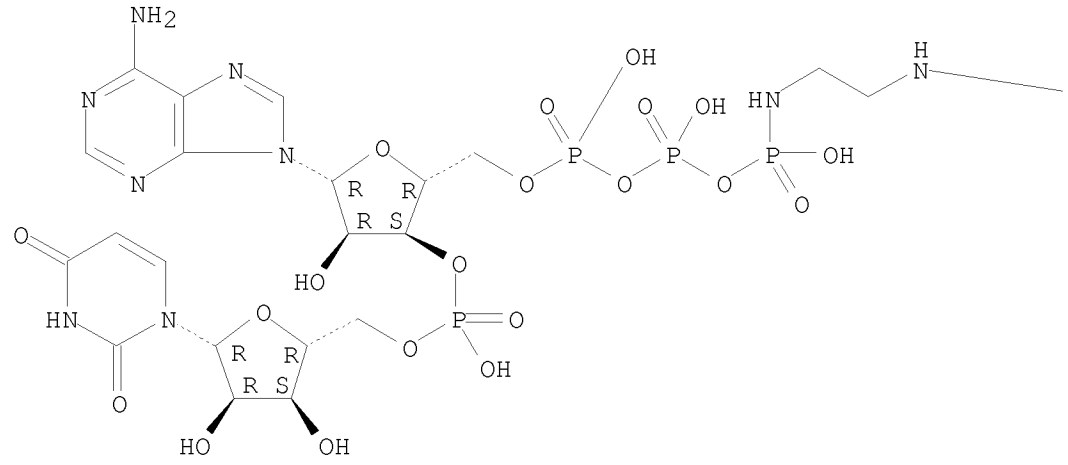
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

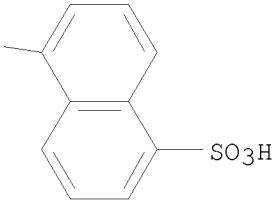
L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Uridine, 5'-O-[hydroxy[[hydroxy[[hydroxy[[2-[(5-sulfo-1-naphthalenyl)amino]ethyl]amino]phosphinyl]oxy]phosphinyl]oxy]phosphinyl]adenylyl-(3'→5')- (9CI)
MF C31 H39 N9 O23 P4 S

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

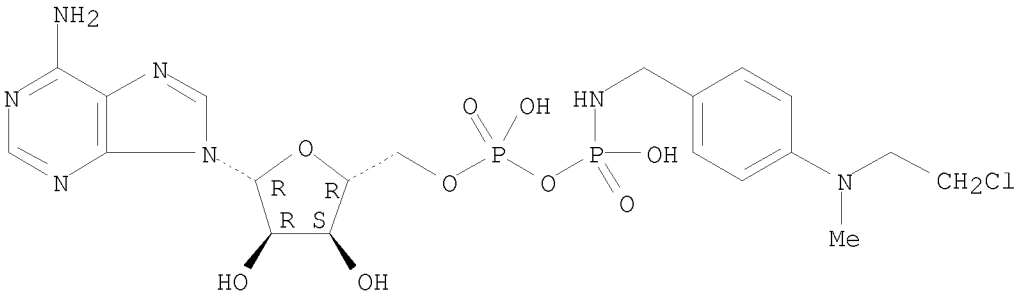


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN 5'-Adenylic acid, monoanhydride with [[4-[(2-chloroethyl)methylamino]phenyl]methyl]phosphoramidic acid, dilithium salt (9CI)
MF C20 H28 Cl N7 O9 P2 . 2 Li

Absolute stereochemistry.



●2 Li

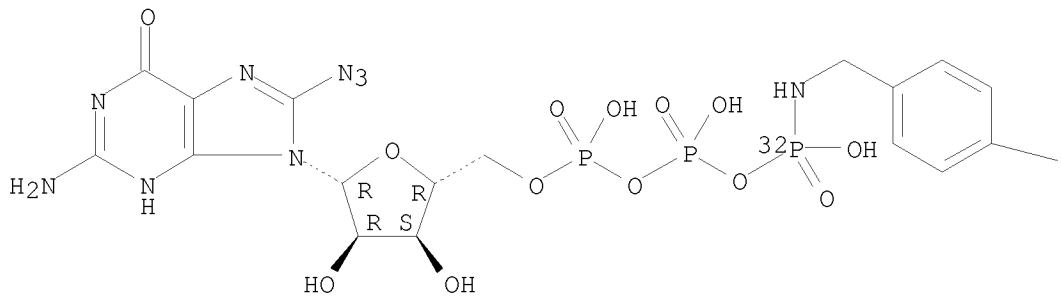
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

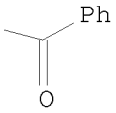
L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Guanosine 5'-(trihydrogen diphosphate), 8-azido-, P'-anhydride with [(4-benzoylphenyl)methyl]phosphoramidic-32P acid, compd. with N,N-diethylethanamine (1:3) (9CI)
MF C24 H26 N9 O14 P3 . 3 C6 H15 N

CM 1

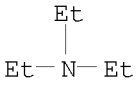
Absolute stereochemistry.







CM 2



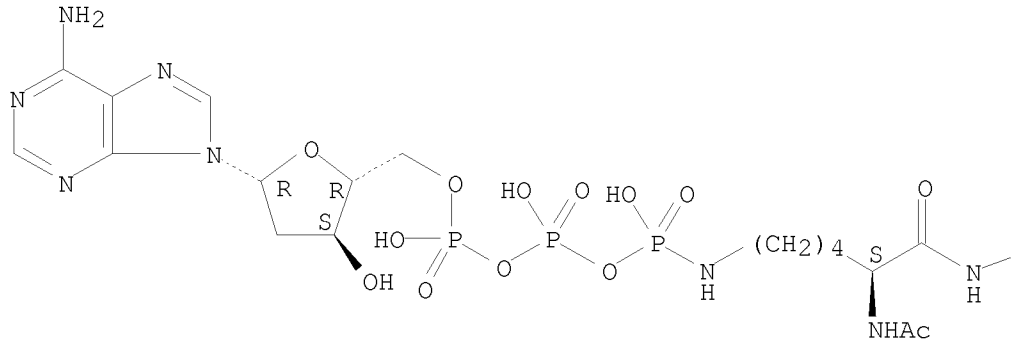
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN L-Lysinamide, N-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-L-serylglycyl-L-tyrosyl-L-seryl-L-arginyl-L-seryl-L-threonylglycyl-L-tyrosyl-L-arginyl-N6-[N2-acetyl-N6-[N2-acetyl-N6-[[[[(2'-deoxy-5'-adenylyl)oxy]hydroxyphosphinyl]oxy]hydroxyphosphinyl]-L-lysyl]-L-lysyl]-, inner salt (9CI)
SQL 13,11,1,1
MF C104 H147 N30 O36 P3

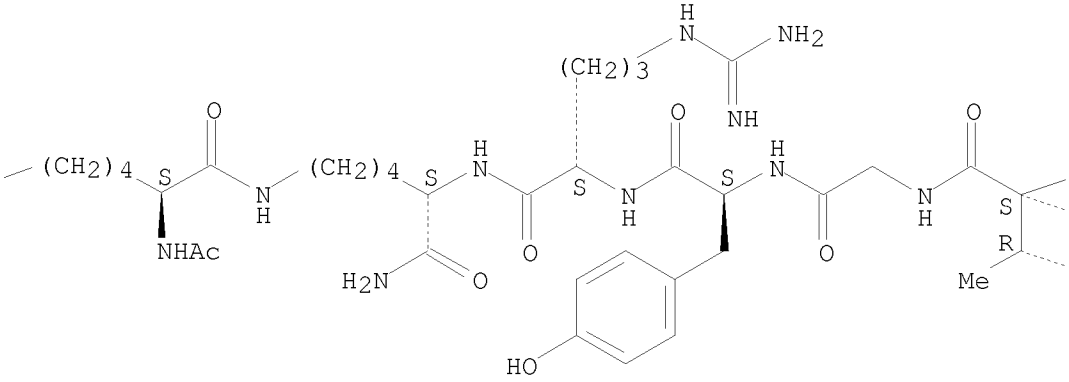
**RELATED SEQUENCES AVAILABLE WITH SEQLINK**

Absolute stereochemistry.





PAGE 1-B



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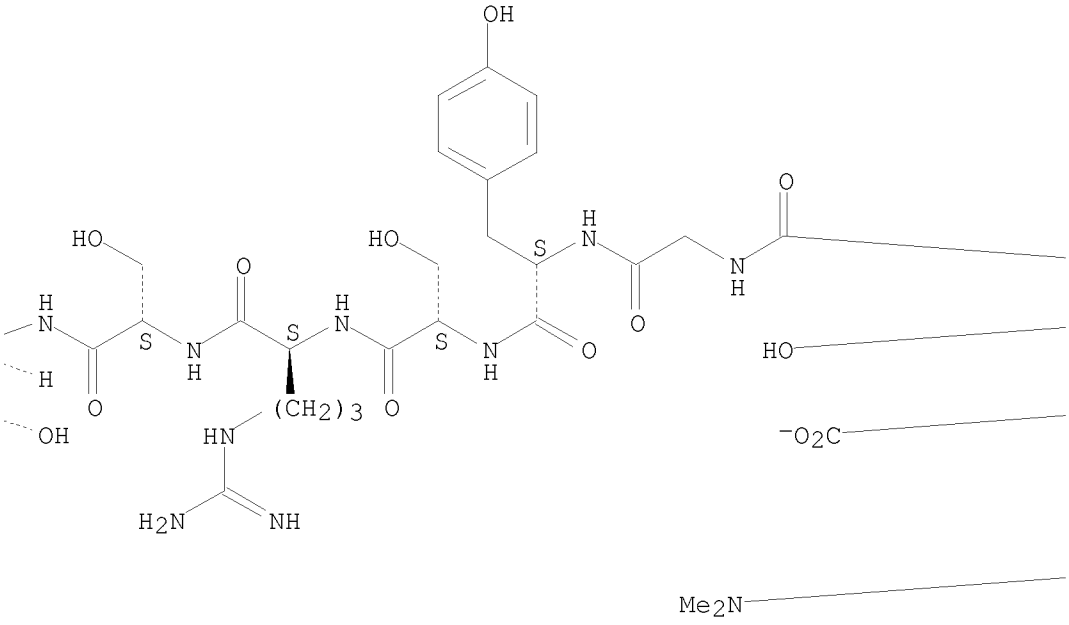

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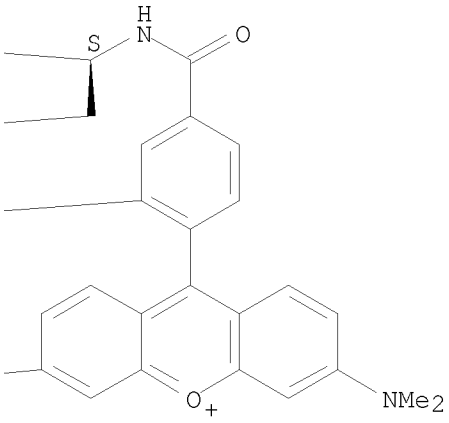
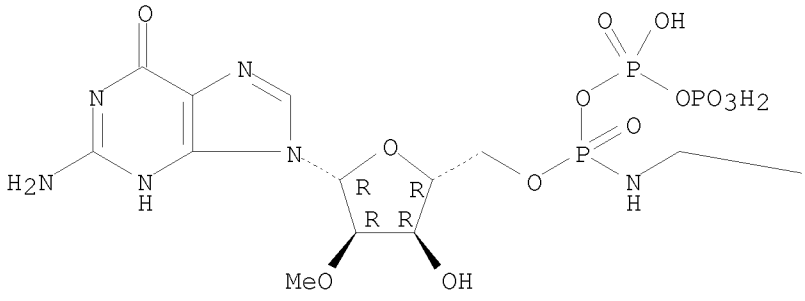


HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

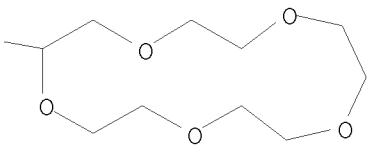
L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Guanosine, 2'-O-methyl-, 5'-[hydrogen (1,4,7,10,13-pentaoxacyclopentadec-2-ylmethyl)phosphoramidate], monoanhydride with diphosphoric acid (9CI)
MF C22 H39 N6 O18 P3

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



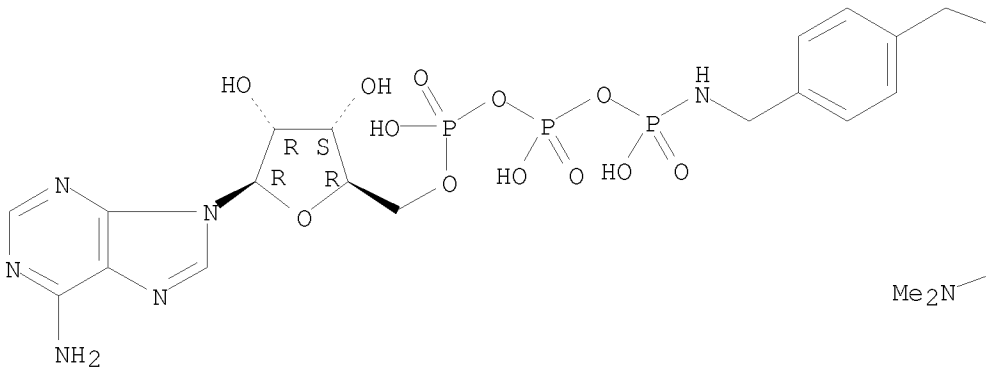
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

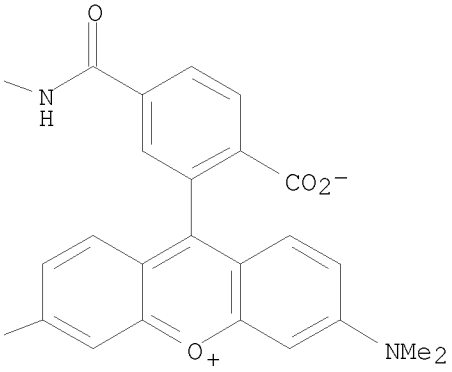
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Adenosine 5'-(trihydrogen diphosphate), P'→P-anhydride with 9-[2-carboxy-5-[[[[4-[(phosphonoamino)methyl]phenyl]methyl]amino]carbonyl]phenyl]-3,6-bis(dimethylamino)xanthylium inner salt
MF C43 H46 N9 O16 P3

Absolute stereochemistry.

PAGE 1-A

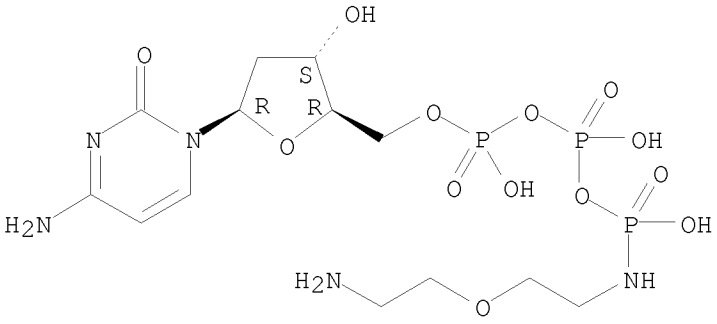




HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Cytidine 5'-(trihydrogen diphosphate), 2'-deoxy-, P'-anhydride with N-[2-(2-aminoethoxy)ethyl]phosphoramidic acid
MF C13 H26 N5 O13 P3

Absolute stereochemistry.

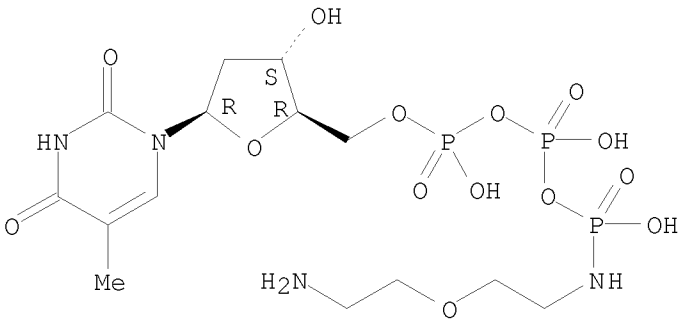


**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Thymidine 5'-(trihydrogen diphosphate), P'-anhydride with N-[2-(2-aminoethoxy)ethyl]phosphoramidic acid
MF C14 H27 N4 O14 P3

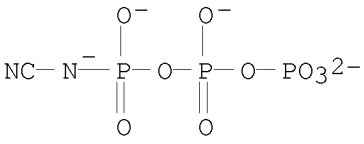
Absolute stereochemistry.



**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN P-Amidotriphosphoric acid, N-cyano-, ion(5-) (9CI)
MF C N2 O9 P3

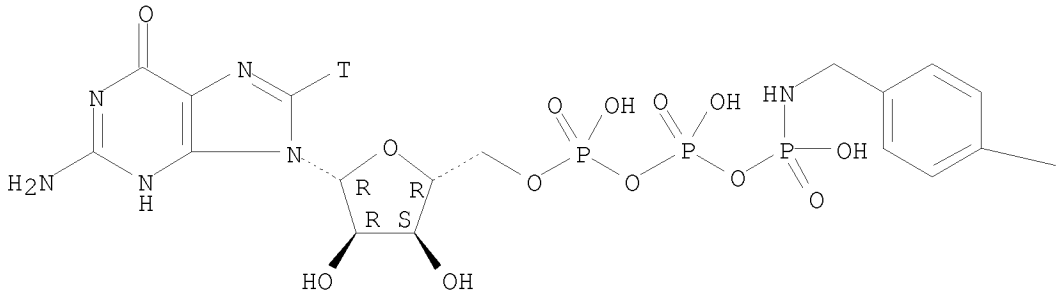


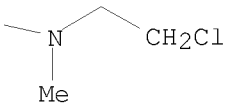
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L22 19 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Guanosine-8-t 5'-(trihydrogen diphosphate), monoanhydride with [[4-[(2-chloroethyl)methylamino]phenyl]methyl]phosphoramidic acid (9CI)
MF C20 H28 Cl N7 O13 P3 T

Absolute stereochemistry.








ALL ANSWERS HAVE BEEN SCANNED

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1 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> 1
1 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> e  P-Amidotriphosphoric acid, N-cyano-/cn
E1            1     P-AMIDOTRIPHOSPHORIC ACID, N-(AMINOCARBONYL)-/CN
E2            1     P-AMIDOTRIPHOSPHORIC ACID, N-(AMINOCARBONYL)-, TETRAAMMONIUM
                     SALT/CN
E3            1 --> P-AMIDOTRIPHOSPHORIC ACID, N-CYANO-/CN
E4            1     P-AMIDOTRIPHOSPHORIC ACID, N-CYANO-, CALCIUM SALT (2:5)/CN
E5            1     P-AMIDOTRIPHOSPHORIC ACID, N-CYANO-, ION(5-)/CN
E6            1     P-AMIDOTRIPHOSPHORIC ACID, N-CYANO-, PENTAAMMONIUM SALT/CN
E7            1     P-AMIDOTRIPHOSPHORIC ACID, N-CYANO-, PENTASILVER(1+) SALT/CN
E8            1     P-AMIDOTRIPHOSPHORIC ACID, N-CYANO-, PENTASODIUM SALT/CN
E9            1     P-AMIDOTRIPHOSPHORIC ACID, N-ETHYL-/CN
E10           1     P-AMIDOTRIPHOSPHORIC ACID, N-METHYL-/CN
E11           1     P-AMIDOTRIPHOSPHORIC ACID, N-METHYL-, SILVER SALT/CN
E12           1     P-AMIDOTRIPHOSPHORIC ACID, TETRAAMMONIUM SALT/CN

=> s e3
L23           1 "P-AMIDOTRIPHOSPHORIC ACID, N-CYANO-"/CN

=> d l23

L23  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   687611-05-8  REGISTRY
ED   Entered STN:  30 May 2004
CN   P-Amidotriphosphoric acid, N-cyano- (9CI)  (CA INDEX NAME)
MF   C H5 N2 O9 P3
CI   COM
SR   CA
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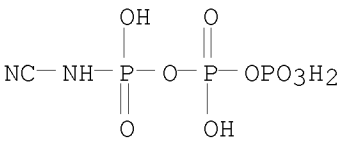

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

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COST IN U.S. DOLLARS

| | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 9.45 | 344.11 |

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

| | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | 0.00 | -16.00 |

FILE 'CAPLUS' ENTERED AT 17:27:08 ON 30 DEC 2008


FILE COVERS 1907 - 30 Dec 2008 VOL 150 ISS 1
FILE LAST UPDATED: 29 Dec 2008 (20081229/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> s l23
L24 0 L23

=> b reg
COST IN U.S. DOLLARS

| | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.48 | 344.59 |

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

| | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|

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CA SUBSCRIBER PRICE                                          0.00     -16.00

FILE 'REGISTRY' ENTERED AT 17:27:24 ON 30 DEC 2008
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STRUCTURE FILE UPDATES:   29 DEC 2008  HIGHEST RN 1091682-77-7
DICTIONARY FILE UPDATES:  29 DEC 2008  HIGHEST RN 1091682-77-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

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  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> FIL STNGUIDE
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.46     345.05

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00     -16.00

FILE 'STNGUIDE' ENTERED AT 17:27:33 ON 30 DEC 2008
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 19, 2008 (20081219/UP).

=> b reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.06     345.11

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00     -16.00

FILE 'REGISTRY' ENTERED AT 17:27:38 ON 30 DEC 2008
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STRUCTURE FILE UPDATES:  29 DEC 2008  HIGHEST RN 1091682-77-7
DICTIONARY FILE UPDATES:  29 DEC 2008  HIGHEST RN 1091682-77-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

```
=> e  P,P'-Diamidodiphosphoric acid, N,N'-dicyano-/cn
E1            1     P,P-DIAMIDODIPHOSPHORIC ACID, N,N,N',N'-TETRAMETHYL-, MONOET
                    HYL ESTER/CN
E2            1     P,P-DIAMIDODIPHOSPHORIC ACID, N,N,N',N'-TETRAMETHYL-, NICKEL
                     COMPLEX/CN
E3            0 --> P,P-DIAMIDODIPHOSPHORIC ACID, N,N-DICYANO-/CN
E4            1     P,P-DIAMIDODIPHOSPHORIC ACID, NICKEL(2+) DERIV./CN
E5            1     P,P-DIAMIDODIPHOSPHORIC ACID, STRONTIUM(2+) DERIV./CN
E6            1     P,P-DIAMIDODIPHOSPHORIC(III,V) ACID/CN
E7            1     P,P-DIAMIDODIPHOSPHORIC(III,V) ACID, TETRAMETHYL-, DIETHYL E
                    STER/CN
E8            1     P,P-DIAMIDODIPHOSPHOROUS ACID/CN
E9            3     P,P-DIAMIDODIPHOSPHOROUS ACID, MOLYBDENUM DERIV./CN
E10           1     P,P-DIAMIDODIPHOSPHOROUS ACID, N,N,N',N'-TETRAETHYL-, BIS(1-
                    METHYLETHYL) ESTER/CN
E11           1     P,P-DIAMIDODIPHOSPHOROUS ACID, N,N,N',N'-TETRAETHYL-, DIBUTY
                    L ESTER/CN
E12           1     P,P-DIAMIDODIPHOSPHOROUS ACID, N,N,N',N'-TETRAETHYL-, DIETHY
                    L ESTER, MOLYBDENUM COMPLEX/CN

=> e
E13           2     P,P-DIAMIDODIPHOSPHOROUS ACID, N,N,N',N'-TETRAKIS(1-METHYLET
                    HYL)-, DIETHYL ESTER, MOLYBDENUM COMPLEX/CN
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                    1-METHYLETHYL)-/CN
E15           1     P,P-DIAMIDOHYPOPHOSPHORIC(III,V) ACID/CN
E16           1     P,P-DIAMIDOHYPOPHOSPHORIC(III,V) ACID, N,N,N',N'-TETRAETHYL-
                    , BIS(1-METHYLETHYL) ESTER/CN
E17           1     P,P-DIAMIDOHYPOPHOSPHORIC(III,V) ACID, N,N,N',N'-TETRAETHYL-
                    , DIBUTYL ESTER/CN
E18           1     P,P-DIAMIDOHYPOPHOSPHORIC(III,V) ACID, N,N,N',N'-TETRAKIS(1-
                    METHYLETHYL)-, DIETHYL ESTER/CN
E19           1     P,P-DIAMIDOIMIDODIPHOSPHORIC ACID/CN
E20           1     P,P-DIAMIDOIMIDODIPHOSPHORIC ACID, DIMETHYL ESTER/CN
E21           1     P,P-DIAMIDOIMIDODIPHOSPHORIC ACID, N''-ETHYL-N,N,N',N'-TETRA
                    METHYL-/CN
E22           1     P,P-DIAMIDOIMIDODIPHOSPHORIC ACID, N''-ETHYL-N,N,N',N'-TETRA
                    METHYL-, DIETHYL ESTER/CN
E23           1     P,P-DIAMIDOIMIDODIPHOSPHORIC ACID, N,N'-DIPHENYL-/CN
E24           1     P,P-DIAMIDOIMIDODIPHOSPHORIC ACID, N,N'-DIPHENYL-, DIPHENYL
                    ESTER/CN
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```
=> e
E25           1     P,P-DIAMIDOIMIDODIPHOSPHORIC ACID, N,N,N',N'-TETRAMETHYL-/CN
E26           1     P,P-DIAMIDOIMIDODIPHOSPHORIC ACID, N,N,N',N'-TETRAMETHYL-, D
                    IBUTYL ESTER/CN
E27           1     P,P-DIAMIDOIMIDODIPHOSPHORIC ACID, PENTAMETHYL-/CN
E28           1     P,P-DIAMIDOIMIDODIPHOSPHORIC(III,V) ACID, N,N,N',N'-TETRAETH
                    YL-N''-METHYL-, DIMETHYL ESTER/CN
E29           1     P,P-DIAMIDOPYROPHOSPHORIC ACID/CN
E30           1     P,P-DIAMIDOPYROPHOSPHORIC ACID, N,N'-DIPHENYL-, DIHEPTACOSYL
                     ESTER/CN
E31           1     P,P-DIAMIDOPYROPHOSPHORIC ACID, N,N,N',N'-TETRAMETHYL-, DIET
                    HYL ESTER/CN
E32           1     P,P-DIAMIDOPYROPHOSPHORIC ACID, N,N,N',N'-TETRAMETHYL-, DIET
                    HYL ESTER, COMPD. WITH ANTIMONY CHLORIDE (SBCL5) (1:2)/CN
E33           1     P,P-DIAMIDOPYROPHOSPHORIC ACID, N,N,N',N'-TETRAMETHYL-, DIET
                    HYL ESTER, COMPD. WITH ANTIMONY CHLORIDE (SBCL5) (2:1)/CN
E34           1     P,P-DIAMIDOPYROPHOSPHORIC ACID, N,N-DIETHYL-N',N'-DIMETHYL-,
                     DIBUTYL ESTER/CN
E35           1     P,P-DIAMIDOPYROPHOSPHORIC ACID, N,N-DIETHYL-N',N'-DIMETHYL-,
                     DIETHYL ESTER/CN
E36           1     P,P-DIAMIDOPYROPHOSPHORIC ACID, N,N-DIETHYL-N',N'-DIMETHYL-,
                     ETHYL METHYL ESTER/CN

=> s e19
L25           1 "P,P-DIAMIDOIMIDODIPHOSPHORIC ACID"/CN

=> d l25

L25  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   27212-85-7  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   P,P-Diamidoimidodiphosphoric acid (9CI)  (CA INDEX NAME)
MF   H7 N3 O4 P2
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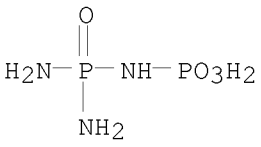

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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

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L25  ANSWER 1 OF 1  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   27212-85-7  REGISTRY
ED   Entered STN:  16 Nov 1984
CN   P,P-Diamidoimidodiphosphoric acid (9CI)  (CA INDEX NAME)
MF   H7 N3 O4 P2
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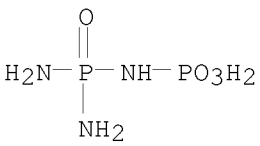

**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

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MISSING OPERATOR '6-[(2-ETHOXY-1'

=> e 3,5,7,9,11-Pentaaza-4,6,8,10-tetraphosphatridecanedioic acid, 6-[(2-ethoxy-1-methyl-2-oxoethyl)amino]-4,8,10-trihydroxy-2,12-dimethyl-,diethyl ester, 4,6,8,10-tetraoxide/cn

| | | |
|---|---|---|
| E1 | 1 | 3,5,7,9,11-PENTAAZA-4,6,8,10-TETRAPHOSPHATRIDECANEDIOIC ACID, 4,6,8,10-TETRAHYDROXY-2,12-DIMETHYL-, DIETHYL ESTER, 4,6,8,10-TETRAOXIDE, (S-(R*,R*))-/CN |
| E2 | 1 | 3,5,7,9,11-PENTAAZA-4,6,8,10-TETRAPHOSPHATRIDECANEDIOIC ACID, 6,8-BIS((2-ETHOXY-1-METHYL-2-OXOETHYL)AMINO)-4,10-DIHYDROXY-2,12-DIMETHYL-, DIETHYL ESTER, 4,6,8,10-TETRAOXIDE, STEREOISOMER/CN |
| E3 | 0 --> | 3,5,7,9,11-PENTAAZA-4,6,8,10-TETRAPHOSPHATRIDECANEDIOIC ACID, 6-(2-ETHOXY-1-METHYL-2-OXOETHYL)AMINO-4,8,10-TRIHYDROXY-2,12-DIMETHYL-,DIETHYL ESTER, 4,6,8,10-TETRAOXIDE/CN |
| E4 | 1 | 3,5,7,9,11-PENTAAZA-4,6,8,10-TETRAPHOSPHATRIDECANEDIOIC ACID, 6-((2-ETHOXY-1-METHYL-2-OXOETHYL)AMINO)-4,8,10-TRIHYDROXY-2,12-DIMETHYL-, DIETHYL ESTER, 4,6,8,10-TETRAOXIDE, STEREOISOMER/CN |
| E5 | 1 | 3,5,7,9,11-PENTAKIS(CHLOROMETHYL)-1,1,1,3,5,7,9,11,13,13,13-UNDECAMETHYLHEPTASILIOXANE/CN |
| E6 | 1 | 3,5,7,9,11-PENTAOXA-14-AZA-2,4,6,8,10,12-HEXASILAHEXADECANE/CN |
| E7 | 1 | 3,5,7,9,11-PENTAOXA-14-AZA-2,4,6,8,10,12-HEXASILAHEXADECANE, 14-ETHYL-2,2,4,4,6,6,8,8,10,10,12,12-DODECAMETHYL-/CN |
| E8 | 1 | 3,5,7,9,11-PENTAOXA-14-AZA-2,4,6,8,10,12-HEXASILAHEXADECANE, 14-ETHYL-2,2,4,4,6,6,8,8,10,10,12,12-DODECAMETHYL-, HYDROCHLORIDE/CN |
| E9 | 1 | 3,5,7,9,11-PENTAOXA-2,4,6,8,10,12-HEXASILAPENTADECAN-15-AMINIUM, 2-HYDROXY-12,12-BIS((METHANOMETHAN)OXY)-N,N,N,2,4,4,6,6,8,8,10,10-DODECAMETHYL-, CHLORIDE (1:1)/CN |
| E10 | 1 | 3,5,7,9,11-PENTAOXA-2,4,6,8,10,12-HEXASILATETRADEC-13-ENE-2,12-DIOL, 2,4,4,6,6,8,8,10,10,12-DECAMETHYL-/CN |
| E11 | 1 | 3,5,7,9,11-PENTAOXA-2,4,6,8,10,12-HEXASILATRIDECAN-2-OL, 10-((DIMETHYLPHENYLSILYL)OXY)-4-((5-((DIMETHYLPHENYLSILYL)OXY)-1,1,3,3,5,7,7-HEPTAMETHYL-7-PHENYL-1-TETRASILOXANYL)OXY)-2,4,6,6,8,8,10,12-OCTAM/CN |
| E12 | 1 | 3,5,7,9,11-PENTAOXA-2,4,6,8,10,12-HEXASILATRIDECAN-2-OL, 12-CHLORO-2,4,4,6,6,8,8,10,10,12-DECAMETHYL-/CN |

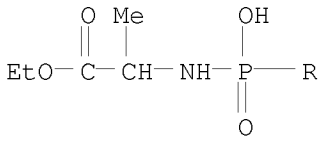
=> s e4

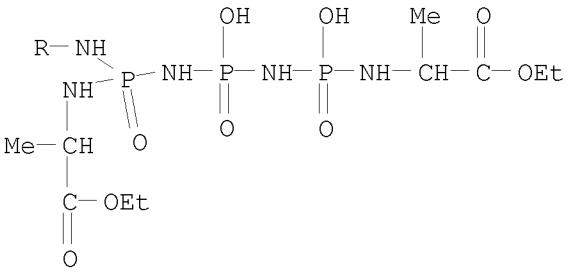
| | | |
|---|---|---|
| L26 | 1 | "3,5,7,9,11-PENTAAZA-4,6,8,10-TETRAPHOSPHATRIDECANEDIOIC ACID, 6-((2-ETHOXY-1-METHYL-2-OXOETHYL)AMINO)-4,8,10-TRIHYDROXY-2,12-D |

IMETHYL-, DIETHYL ESTER, 4,6,8,10-TETRAOXIDE, STEREOISOMER"/CN

=> d l26

L26 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2008 ACS on STN
RN 146299-35-6 REGISTRY
ED Entered STN: 05 Mar 1993
CN *3,5,7,9,11-Pentaaza-4,6,8,10-tetraphosphatridecanedioic acid, 6-[(2-ethoxy-1-methyl-2-oxoethyl)amino]-4,8,10-trihydroxy-2,12-dimethyl-, diethyl ester, 4,6,8,10-tetraoxide, stereoisomer (9CI)* (CA INDEX NAME)
MF C15 H36 N6 O13 P4
SR CA
LC STN Files: CA, CAPLUS





**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> b caplus

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 17.68 | 362.79 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | 0.00 | -16.00 |

FILE 'CAPLUS' ENTERED AT 17:29:23 ON 30 DEC 2008
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FILE COVERS 1907 - 30 Dec 2008 VOL 150 ISS 1
FILE LAST UPDATED: 29 Dec 2008 (20081229/ED)

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=> s l26
L27 1 L26

=> d l27

L27 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1993:125016 CAPLUS
DN 118:125016
OREF 118:21701a,21704a
TI Fast atom bombardment in the structural identification of intermediates in the hydrolytic degradation of polyphosphazenes
AU Caliceti, P.; Veronese, F. M.; Marsilio, F.; Lora, S.; Seraglia, R.; Traldi, P.
CS Dip. Sci. Farm., Univ. Padova, Padua, 35100, Italy
SO Organic Mass Spectrometry (1992), 27(11), 1199-202
CODEN: ORMSBG; ISSN: 0030-493X
DT Journal
LA English

=> FIL STNGUIDE

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 1.69 | 364.48 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | 0.00 | -16.00 |

FILE 'STNGUIDE' ENTERED AT 17:29:38 ON 30 DEC 2008


FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Dec 19, 2008 (20081219/UP).

=>
Connecting via Winsock to STN

Welcome to STN International!  Enter x:x

LOGINID:ssptajsl1623

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'STNGUIDE' AT 17:31:58 ON 30 DEC 2008
FILE 'STNGUIDE' ENTERED AT 17:31:58 ON 30 DEC 2008
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.12 | 364.60 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | 0.00 | -16.00 |

=> b caplus

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.12 | 364.60 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | 0.00 | -16.00 |

FILE 'CAPLUS' ENTERED AT 17:32:15 ON 30 DEC 2008
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FILE COVERS 1907 - 30 Dec 2008  VOL 150 ISS 1
FILE LAST UPDATED: 29 Dec 2008  (20081229/ED)

Caplus now includes complete International Patent Classification (IPC)
reclassification data for the third quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> s phosphoramidate not (nucleo!ide)
          2439 PHOSPHORAMIDATE
          1072 PHOSPHORAMIDATES
          2830 PHOSPHORAMIDATE
                 (PHOSPHORAMIDATE OR PHOSPHORAMIDATES)

```
        535925 NUCLEO!IDE
L28       2194 PHOSPHORAMIDATE NOT (NUCLEO!IDE)

=> s l28 and py<=2003
      24028314 PY<=2003
L29       1855 L28 AND PY<=2003

=> l29 and (t cells)
L29 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> s \l29 and (t cells)
           365 \L29
                 ('L29')
        957607 T
       2153005 CELLS
             2 CELLSES
       2153006 CELLS
                 (CELLS OR CELLSES)
        106271 T CELLS
                 (T(W)CELLS)
L30          5 \L29 AND (T CELLS)

=> s l29 and (t cells)
        957607 T
       2153005 CELLS
             2 CELLSES
       2153006 CELLS
                 (CELLS OR CELLSES)
        106271 T CELLS
                 (T(W)CELLS)
L31          0 L29 AND (T CELLS)

=> logoff hold
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FULL ESTIMATED COST                                      17.92     382.52

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                       0.00     -16.00

 SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 17:33:40 ON 30 DEC 2008

Connecting via Winsock to STN



Welcome to STN International!  Enter x:x

LOGINID:ssptajsl1623

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'CAPLUS' AT 17:42:42 ON 30 DEC 2008
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FILE 'CAPLUS' ENTERED AT 17:42:42 ON 30 DEC 2008
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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    17.92     382.52

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00     -16.00

=> b reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    18.40     383.00

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                     0.00     -16.00

FILE 'REGISTRY' ENTERED AT 17:43:03 ON 30 DEC 2008
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Property values tagged with IC are from the ZIC/VINITI data file
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STRUCTURE FILE UPDATES:   29 DEC 2008  HIGHEST RN 1091682-77-7
DICTIONARY FILE UPDATES:  29 DEC 2008  HIGHEST RN 1091682-77-7

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=> ....Testing the current file.... screen

ENTER SCREEN EXPRESSION OR (END):end


=> screen 1838

L32   SCREEN CREATED

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Uploading C:\Documents and Settings\jlau1\My Documents\10581144 - HDMAPP\genus5.str
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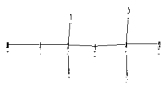


chain nodes :
1 2 3 4 5 6 7 8 10 12
chain bonds :
1-2 1-10 2-3 2-7 2-8 3-4 4-5 4-6 4-12
exact/norm bonds :
1-2 1-10 2-3 2-7 2-8 3-4 4-5 4-6 4-12

G1:O,N

G2:C,O,N

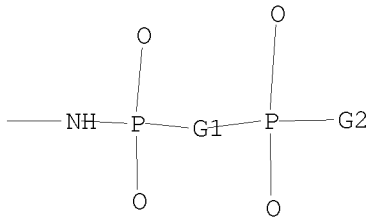
Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 10:CLASS
12:CLASS

L33 STRUCTURE UPLOADED

=> que L33 NOT L32

L34 QUE L33 NOT L32

=> d l33
L33 HAS NO ANSWERS
L33 STR




G1 O,N

G2 C,O,N

Structure attributes must be viewed using STN Express query preparation.

=> s l34 sss sam
SAMPLE SEARCH INITIATED 17:43:20 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 13 TO ITERATE

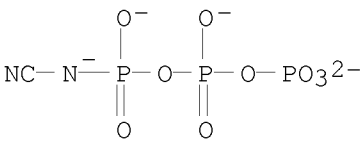
100.0% PROCESSED 13 ITERATIONS 3 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 44 TO 476
PROJECTED ANSWERS: 3 TO 163

L35 3 SEA SSS SAM L33 NOT L32

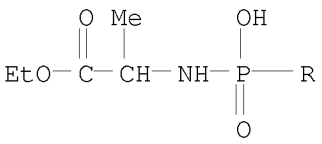
=> d l35 scan

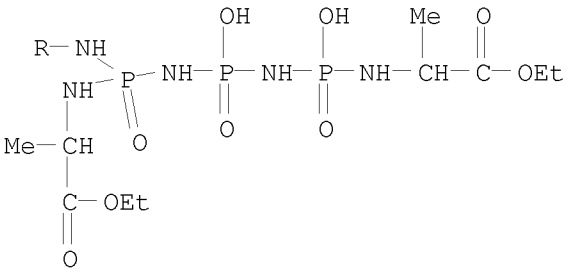
L35 3 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN P-Amidotriphosphoric acid, N-cyano-, ion(5-) (9CI)
MF C N2 O9 P3




HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L35 3 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN 3,5,7,9,11-Pentaaza-4,6,8,10-tetraphosphatridecanedioic acid,
6-[(2-ethoxy-1-methyl-2-oxoethyl)amino]-4,8,10-trihydroxy-2,12-dimethyl-,
diethyl ester, 4,6,8,10-tetraoxide, stereoisomer (9CI)
MF C15 H36 N6 O13 P4

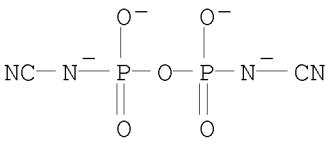




**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L35 3 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN P,P'-Diamidodiphosphoric acid, N,N'-dicyano-, ion(4-) (9CI)
MF C2 N4 O5 P2



ALL ANSWERS HAVE BEEN SCANNED

=> s l34 sss full
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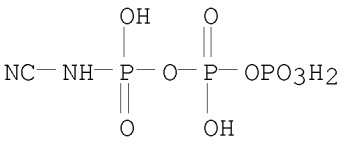
FULL SCREEN SEARCH COMPLETED - 268 TO ITERATE

100.0% PROCESSED 268 ITERATIONS 82 ANSWERS
SEARCH TIME: 00.00.01

L36 82 SEA SSS FUL L33 NOT L32

=> d l36 scan

L36 82 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN P-Amidotriphosphoric acid, N-cyano-, pentasilver(1+) salt (9CI)
MF C H5 N2 O9 P3 . 5 Ag

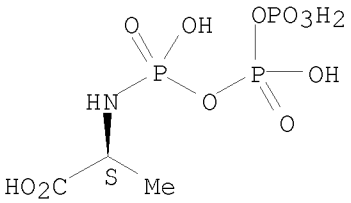


●5 Ag(I)

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L36 82 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN 2,4-Dioxa-6-aza-1,3,5-triphosphaoctan-8-oic acid,
1,1,3,5-tetrahydroxy-7-methyl-, 1,3,5-trioxide, (S)- (9CI)
MF C3 H10 N O11 P3

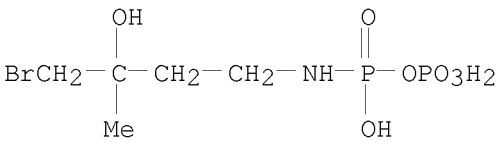
Absolute stereochemistry.



**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L36 82 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Amidodiphosphoric acid, (4-bromo-3-hydroxy-3-methylbutyl)-, disodium salt
(9CI)
MF C5 H14 Br N O7 P2 . 2 Na

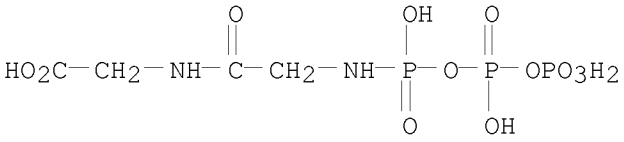


●2 Na

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L36 82 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN Glycine, N-[N-[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]gly

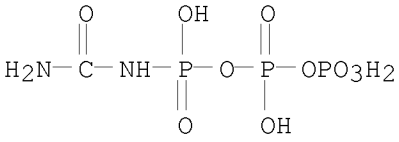
cyl]- (9CI)
MF C4 H11 N2 O12 P3



**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L36 82 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN
IN P-Amidotriphosphoric acid, N-(aminocarbonyl)-, tetraammonium salt (9CI)
MF C H7 N2 O10 P3 . 4 H3 N





HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):b caplus
'B CAPLUS' IS NOT VALID HERE

To display more answers, enter the number of answers you would like to see. To end the display, enter "NONE", "N", "0", or "END".
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):end

=> b caplus

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 178.82 | 561.82 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | 0.00 | -16.00 |

FILE 'CAPLUS' ENTERED AT 17:44:09 ON 30 DEC 2008
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FILE COVERS 1907 - 30 Dec 2008 VOL 150 ISS 1
FILE LAST UPDATED: 29 Dec 2008 (20081229/ED)

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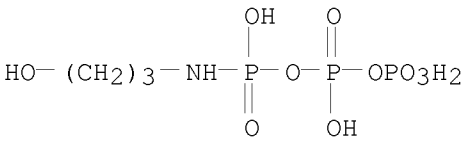
=> s l36
L37 43 L36

=> s l37 and py<=2003
24028314 PY<=2003
L38 34 L37 AND PY<=2003

=> d l38 1-34 ibib abs hitstr

L38 ANSWER 1 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:563171 CAPLUS
DOCUMENT NUMBER: 138:4338
TITLE: Synthesis of N-(O-hydroxyalkyl)triphosphoramidates by inorganic cyclo-triphosphate
AUTHOR(S): Inoue, Hideko; Nakayama, Hirokazu; Tsuhako, Mitsutomo
CORPORATE SOURCE: Department of Functional Molecular Chemistry, Kobe Pharmaceutical University, Kobe, 658-8558, Japan
SOURCE: Phosphorus Research Bulletin (*2001*), 12, 65-72
CODEN: PREBE7; ISSN: 0918-4783
PUBLISHER: Japanese Association of Inorganic Phosphorus Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 138:4338
AB The phosphorylation of amino alcs. has been achieved using inorg. sodium cyclo-triphosphate hexahydrate, Na3P3O9·6H2O, in aqueous solution The main phosphorylated products were imidotriphosphates of amino alcs. as evidenced by 1H, 13C, and 31P NMR spectra. In the phosphorylation of 3-amino-1-propanol, 4-amino-1-butanol, and 5-amino-1-pentanol, only their amino groups were phosphorylated to give imidotriphosphates, with their maximum yields of more than 97 %.
IT *476658-47-6P* *476658-49-8P* *476658-51-2P*
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of N-(O-hydroxyalkyl)triphosphoramidates by phosphorylation of amino alcs. using inorg. cyclo-triphosphate)
RN 476658-47-6 CAPLUS
CN P-Amidotriphosphoric acid, N-(3-hydroxypropyl)-, barium salt (1:2) (9CI) (CA INDEX NAME)



RN 476658-49-8 CAPLUS
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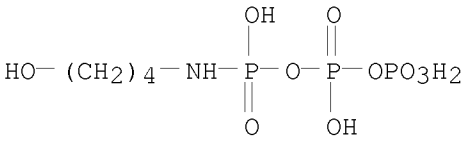

RN 476658-51-2 CAPLUS
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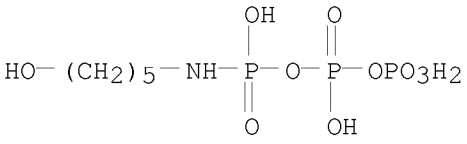
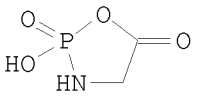


REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L38 ANSWER 2 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1994:324192 CAPLUS
DOCUMENT NUMBER: 120:324192
ORIGINAL REFERENCE NO.: 120:57069a,57072a
TITLE: Formation of dipeptide in the reaction of amino acids with cyclo-triphosphate
AUTHOR(S): Inoue, Hideko; Baba, Yoshinobu; Furukawa, Tomoko; Maeda, Yasuyo; Tsuhako, Mitsutomo
CORPORATE SOURCE: Kobe Women's Coll. Pharm., Kobe, 658, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (*1993*), 41(11), 1895-9
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



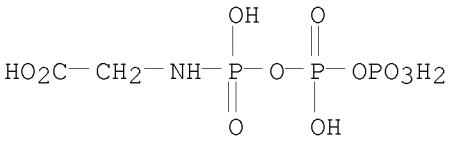
I

AB The reaction of Gly or Ala with inorg. sodium cyclotriphosphate hexahydrate ($Na_3P_3O_9 \cdot 6H_2O$, P3m) gave dipeptides and N-phosphorylated amino acids, but the reaction of Val or Ser with P3m showed no peptide formation. Gly reacted with P3m to give $H_2O_3P$-Gly-OH, five-membered ring cyclic anhydride I, $H_2O_3P$-Gly-Gly-OH, triphosphoramidate $H_3O_9P_3$-Gly-OH (II), and H-Gly-Gly-OH. I was formed via an intramol. cyclization of II, and was a key intermediate for the production of H-Gly-Gly-OH. Phosphorylation of Ala with P3m also gave H-Ala-Ala-OH in addition to the phosphorylated products including the five-membered cyclic anhydride. The yields of H-Gly-Gly-OH and H-Ala-Ala-OH were 15.8 and 2.0%, resp. In the reactions of Val and Ser with P3m, only $H_2O_3P$-Val-OH and $H_2O_3P$-Ser-OH were formed; their dipeptides were not obtained at all. The mechanism of the dipeptide formation is discussed.

IT *155179-90-1P* *155179-91-2P*
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in condensation of cyclotriphosphate with alanine)

RN 155179-90-1 CAPLUS

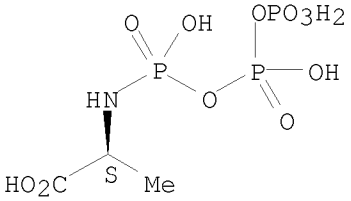
CN Glycine, N-[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]- (CA INDEX NAME)



RN 155179-91-2 CAPLUS

CN 2,4-Dioxa-6-aza-1,3,5-triphosphaoctan-8-oic acid, 1,1,3,5-tetrahydroxy-7-methyl-, 1,3,5-trioxide, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L38 ANSWER 3 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1993:125016 CAPLUS

DOCUMENT NUMBER: 118:125016

ORIGINAL REFERENCE NO.: 118:21701a,21704a

TITLE: Fast atom bombardment in the structural identification of intermediates in the hydrolytic degradation of

polyphosphazenes

AUTHOR(S): Caliceti, P.; Veronese, F. M.; Marsilio, F.; Lora, S.; Seraglia, R.; Traldi, P.

CORPORATE SOURCE: Dip. Sci. Farm., Univ. Padova, Padua, 35100, Italy

SOURCE: Organic Mass Spectrometry (*1992*), 27(11), 1199-202
CODEN: ORMSBG; ISSN: 0030-493X

DOCUMENT TYPE: Journal

LANGUAGE: English

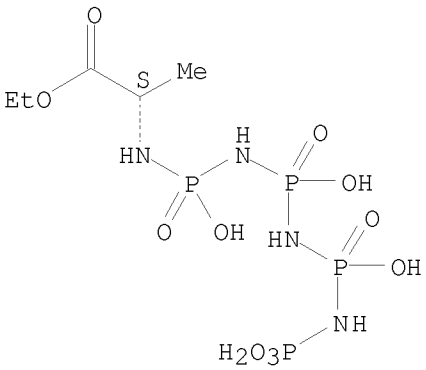
AB Fast atom bombardment mass spectrometry was employed in a study related to the hydrolytic degradation of alanine Et ester and imidazole-substituted polyphosphazenes, to be used as matrixes for drug release. Some intermediates were identified and their structural assignment was accomplished by means of mass-analyzed ion kinetic energy data. All the detected species show the same phosphazene skeleton, consisting of a P4N3 chain, with an increasing number of alanine Et ester substituents, and no evidence was found for the presence of imidazole bound to the polymer backbone.

IT *146299-33-4* *146299-34-5* *146299-35-6*
RL: PRP (Properties)
(fast-atom-bombardment mass spectrometry of)

RN 146299-33-4 CAPLUS

CN 2,4,6,8-Tetraaza-1,3,5,7-tetraphosphadecan-10-oic acid, 1,1,3,5,7-pentahydroxy-9-methyl-, ethyl ester, 1,3,5,7-tetraoxide, (S)- (9CI) (CA INDEX NAME)

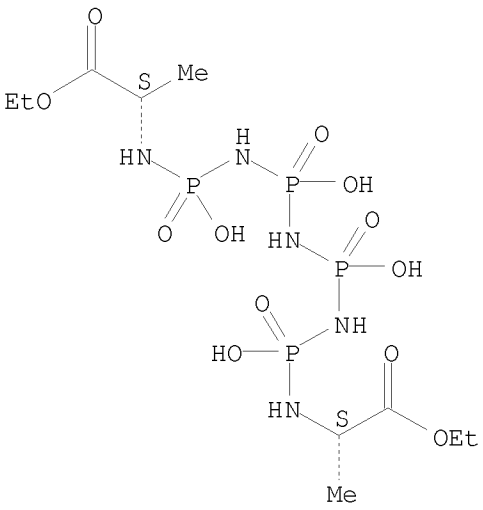
Absolute stereochemistry.



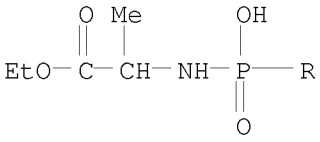
RN 146299-34-5 CAPLUS

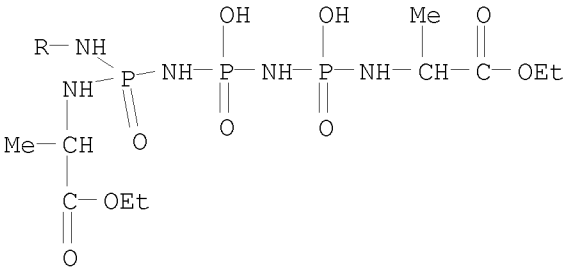
CN 3,5,7,9,11-Pentaaza-4,6,8,10-tetraphosphatridecanedioic acid, 4,6,8,10-tetrahydroxy-2,12-dimethyl-, diethyl ester, 4,6,8,10-tetraoxide, [S-(R*,R*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 146299-35-6 CAPLUS
CN 3,5,7,9,11-Pentaaza-4,6,8,10-tetraphosphatridecanedioic acid, 6-[(2-ethoxy-1-methyl-2-oxoethyl)amino]-4,8,10-trihydroxy-2,12-dimethyl-, diethyl ester, 4,6,8,10-tetraoxide, stereoisomer (9CI) (CA INDEX NAME)





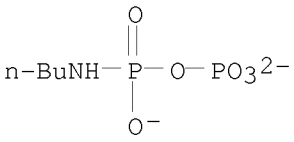
L38 ANSWER 4 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1990:583728 CAPLUS
DOCUMENT NUMBER: 113:183728
ORIGINAL REFERENCE NO.: 113:30901a,30904a
TITLE: Non-enzymic phosphate condensation in dilute aqueous media - the effect of alkyl substituents on sulfamide
AUTHOR(S): Gard, David R.
CORPORATE SOURCE: Deterg. Phosphates Div., Monsanto Chem. Co., St. Louis, MO, 63167, USA
SOURCE: Phosphorus, Sulfur and Silicon and the Related Elements (*1990*), 51-52(1-4), 145-8
CODEN: PSSLEC; ISSN: 1042-6507
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The reactions of RR'NSO2NH2 (R = Bu, R' = H; R = R' = Me) with P2O74- and P3O105- in dilute aqueous solution were examined to determine the reaction requirements with respect to the relative position of amino hydrogens. A nucleophilic attack by the sulfamide anion on the phosphate is postulated, resulting in the cyclocondensation of P3O105- to P3O93- and the formation of RNHP2O63- (R = Bu, H). The major reaction pathway leads to the formation of H2NSO3-.

IT *129888-72-8P*, Butylaminodiphosphate
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in phosphate condensation by alc.-substituted sulfamides)

RN 129888-72-8 CAPLUS

CN Amidodiphosphoric acid, butyl-, ion(3-) (9CI) (CA INDEX NAME)



L38 ANSWER 5 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:194305 CAPLUS

DOCUMENT NUMBER: 112:194305

ORIGINAL REFERENCE NO.: 112:32749a,32752a

TITLE: Phosphorus-containing inhibitors of aspartate transcarbamoylase from Escherichia coli

AUTHOR(S): Laing, Naomi; Chan, William W. C.; Hutchinson, David W.; Oeberg, Bo

CORPORATE SOURCE: Med. Cent., McMaster Univ., Hamilton, ON, L8N 3Z5, Can.

SOURCE: FEBS Letters (*1990*), 260(2), 206-8
CODEN: FEBLAL; ISSN: 0014-5793

DOCUMENT TYPE: Journal

LANGUAGE: English

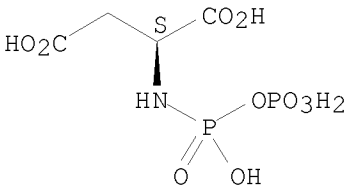
AB N-Pyrophosphoryl-L-aspartate was prepared as a charged analog of the postulated reaction intermediate of aspartate transcarbamoylase. Surprisingly, its affinity for the enzyme from E. coli was substantially lower than that of the previously known inhibitor phosphonoacetyl-L-aspartate, which contains a trigonal carbonyl group. Similar results were obtained with the corresponding mercaptosuccinate derivs. A number of new pyrophosphate analogs were also tested as inhibitors. The results cast doubt on some aspects of the current model for the mechanism of this enzyme.

IT *126884-21-7P*
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and aspartate transcarbamoylase of Escherichia coli inhibition kinetics with, structure in relation to)

RN 126884-21-7 CAPLUS

CN L-Aspartic acid, N-[hydroxy(phosphonooxy)phosphinyl]- (CA INDEX NAME)

Absolute stereochemistry.

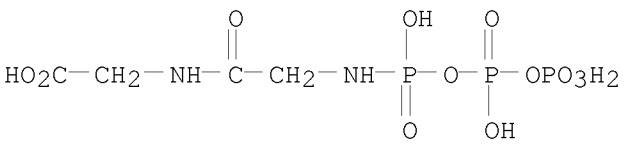


L38 ANSWER 6 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1989:71465 CAPLUS
DOCUMENT NUMBER: 110:71465
ORIGINAL REFERENCE NO.: 110:11711a,11714a
TITLE: Condensation of oligoglycines with trimeta- and tetrametaphosphate in aqueous solutions
AUTHOR(S): Yamanaka, Junpei; Inomata, Katsuhiko; Yamagata, Yukio
CORPORATE SOURCE: Fac. Sci., Kanazawa Univ., Kanazawa, 920, Japan
SOURCE: Origins of Life and Evolution of the Biosphere (*1988*), 18(3), 165-78
CODEN: OLEBEM; ISSN: 0169-6149
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 110:71465

AB The dehydration condensation of glycine with trimetaphosphate in aqueous solution was reinvestigated. The condensation of oligoglycines with trimeta- and tetrametaphosphate in aqueous solution is possibly through the formation of their acylphosphates under neutral or weak acidic conditions. Aqueous solns. of 1.0M glycylglycine and 1.0M trimetaphosphate were incubated at 38° and pH 4.0-9.0. The solns. were analyzed by HPLC with a ninhydrin reaction system. Tetraglycine and hexaglycine were detected and their maximum yields were given in the reaction at pH .apprx.7. They are .apprx.15% and 4% after 30 days, resp. Analogous expts. were performed with tetrametaphosphate. The results showed a similar pH dependence for the condensation, but the yields were .apprx.1/10 of those of corresponding expts. with trimetaphosphate. Relative rates of dimerization of glycine, diglycine, and triglycine in the equimolar concentration were also investigated at pH 6.0 at 38°. The rates for diglycine and triglycine were .apprx.2- and 4-fold that for glycine, resp. Relevance of the expts. to chemical evolution is discussed.

IT *32177-70-1P*
RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in condensation of glycylglycine with trimetaphosphate)

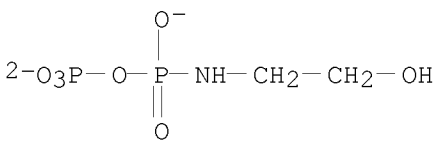
RN 32177-70-1 CAPLUS
CN Glycine, N-[N-[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]glycyl]- (9CI) (CA INDEX NAME)



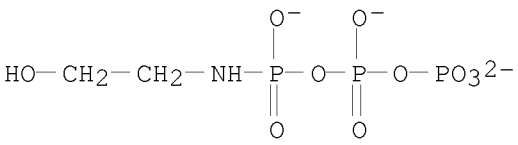
L38 ANSWER 7 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1987:515646 CAPLUS
DOCUMENT NUMBER: 107:115646
ORIGINAL REFERENCE NO.: 107:18751a,18754a
TITLE: The reaction of cyclo-triphosphate with ethanolamines
AUTHOR(S): Tsuhako, Mitsutomo; Sueyoshi, Chiyoko; Miyajima, Tohru; Ohashi, Shigeru; Nariai, Hiroyuki; Motooka, Itaru
CORPORATE SOURCE: Kobe Women's Coll. Pharm., Kobe, 658, Japan
SOURCE: Bulletin of the Chemical Society of Japan (*1986*), 59(10), 3091-5
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 107:115646

AB The reaction of cyclotriphosphate (P3m) with HOCH2CH2NH2 (MEA), (HOCH2CH2)2NH (DEA), or (HOCH2CH2)3N (TEA) in an aqueous solution was studied under various conditions (mixing ratio of MEA, DEA, or TEA to P3m, pH, temperature, and reaction time). At pH 7-12, P3m reacted with MEA or DEA to yield tri-, di-, and monophosphate derivs. of MEA or DEA. The phosphoric acid ester of MEA or DEA was not formed at all. The reactivities of MEA and DEA to P3m were in the order of MEA > DEA, and TEA did not react with P3m. The reactivity of P3m with MEA or DEA decreased with the decrease in the pH, and no reaction took place under acidic conditions. The maximum yields of triphosphate derivs. of MEA, N-(2-hydroxyethyl)triphosphoramidate (P3-(N)MEA) and of DEA, N-bis(2-hydroxyethyl)triphosphoramidate (P3-(N)DEA), were .apprx.75 and 60%, resp., at a 1:1 molar ratio at pH 12, and at room temperature P3-(N)MEA and P3-(N)DEA easily recyclized to the raw material, P3m, under acidic conditions. The mechanism of the reaction between P3m and MEA or DEA was studied.

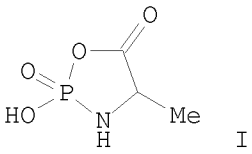
IT *110086-36-7P*
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation from cyclotriphosphate and ethanolamine and hydrolysis of)
RN 110086-36-7 CAPLUS
CN Amidodiphosphoric acid, (2-hydroxyethyl)-, ion(3-) (9CI) (CA INDEX NAME)



IT *110086-35-6P*
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, from cyclotriphosphate and ethanolamine)
RN 110086-35-6 CAPLUS
CN P-Amidotriphosphoric acid, N-(2-hydroxyethyl)-, ion(4-) (9CI) (CA INDEX NAME)



L38 ANSWER 8 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1986:497889 CAPLUS
DOCUMENT NUMBER: 105:97889
ORIGINAL REFERENCE NO.: 105:15845a,15848a
TITLE: The reaction of cyclo-triphosphate with L-α- or -β-alanine
AUTHOR(S): Tsuhako, Mitsutomo; Nakajima, Akemi; Miyajima, Tohru; Ohashi, Shigeru; Nariai, Hiroyuki; Motooka, Itaru
CORPORATE SOURCE: Kobe Women's Coll. Pharm., Kobe, 658, Japan
SOURCE: Bulletin of the Chemical Society of Japan (*1985*), 58(11), 3092-8
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 105:97889
GI

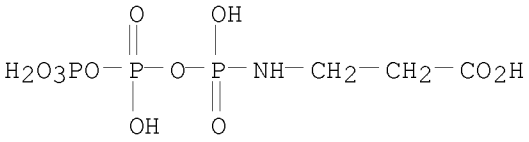


I

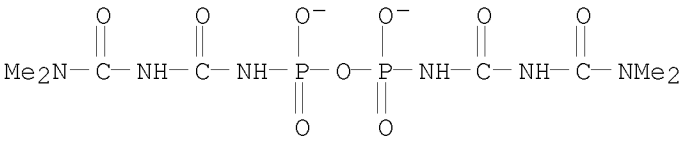
AB The reaction of Na cyclo-triphosphate (P3m) with L-α-alanine at pH 10 and 12 gave (HO)2P(O)NHCHMeCO2H and 1,3,2-oxazaphospholidine I, whereas the reaction of P3m with β-alanine gave only (HO)2P(O)OP(O)(OH)OP(O)(OH)NHCH2CH2CO2H (II). IR and 31P NMR spectroscopies were used to identify the above products. Oligopeptides, e.g. H-(Ala)n-OH (n = 2, 3), were obtained in the reaction of P3m with α-alanine. Under acidic conditions, II recyclized to P3m and β-alanine. The mechanisms of the above reactions are discussed.

IT *103897-71-8P*
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in β-alanine reaction with cyclic triphosphate)

RN 103897-71-8 CAPLUS
CN 2,4-Dioxa-6-aza-1,3,5-triphosphanonan-9-oic acid, 1,1,3,5-tetrahydroxy-, 1,3,5-trioxide, pentasodium salt (9CI) (CA INDEX NAME)




L38 ANSWER 9 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1984:438543 CAPLUS
DOCUMENT NUMBER: 101:38543
ORIGINAL REFERENCE NO.: 101:6029a,6032a
TITLE: Phosphorylation of N,N-dimethylurea with phosphoryl chloride. N,N-dimethylbiuretophosphate
AUTHOR(S): Lehmann, H. A.; Schaffrath, W.
CORPORATE SOURCE: Sekt. Chem., Tech. Univ. Dresden, Dresden, DDR-8027, Ger. Dem. Rep.
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (*1984*), 508, 145-8
CODEN: ZAACAB; ISSN: 0044-2313
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 101:38543
AB The 4:1 reaction of Me2NCONH2 and POCl3 in liquid SO2 followed by alkaline hydrolysis gave .apprx.80% [Me2NCONHCONHP(O)O-]2O.
IT *90827-94-4P*
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 90827-94-4 CAPLUS
CN P,P'-Diamidodiphosphoric acid, N,N'-bis[[[(dimethylamino)carbonyl]amino]carbonyl]-, ion(2-) (9CI) (CA INDEX NAME)



L38 ANSWER 10 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1983:522546 CAPLUS
DOCUMENT NUMBER: 99:122546
ORIGINAL REFERENCE NO.: 99:18881a,18884a
TITLE: The reaction of cyclo-triphosphate with ethylenediamine
AUTHOR(S): Tsuhako, Mitsutomo; Nakahama, Akiko; Ohashi, Shigeru; Nariai, Hiroyuki; Motooka, Itaru
CORPORATE SOURCE: Kobe Women's Coll. Pharm., Kobe, 658, Japan
SOURCE: Bulletin of the Chemical Society of Japan (*1983*), 56(5), 1372-7
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal

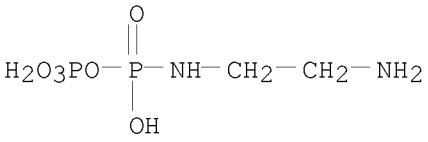
LANGUAGE: English

AB The reaction of sodium cyclo-triphosphate with RH (R = NHCH2CH2NH2) gave R2P(O)- (I), RP2O72- (II), and RP3O93- (III). Formation of .apprx.12% I was favored at pH 10-12 whereas 9% II and 32% III formed at a pH near 10. Ortho-, pyro-, and triphosphate did not react with RH.

IT *87064-03-7P* *87064-04-8P*
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 87064-03-7 CAPLUS

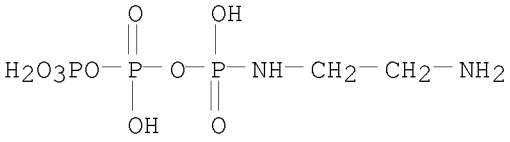
CN Amidodiphosphoric acid, (2-aminoethyl)-, trisodium salt (9CI) (CA INDEX NAME)



●3 Na

RN 87064-04-8 CAPLUS

CN P-Amidotriphosphoric acid, N-(2-aminoethyl)-, tetrasodium salt (9CI) (CA INDEX NAME)



●4 Na

L38 ANSWER 11 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1983:193962 CAPLUS

DOCUMENT NUMBER: 98:193962

ORIGINAL REFERENCE NO.: 98:29389a,29392a

TITLE: Substrate and metal specificity in the enzymic synthesis of cyclic monoterpenes from geranyl and neryl pyrophosphate

AUTHOR(S): Rojas, M. Cecilia; Chayet, Liliana; Portilla, Gloria; Cori, Osvaldo

CORPORATE SOURCE: Fac. Cienc. Bas. Farm., Univ. Chile, Santiago, Chile

SOURCE: Archives of Biochemistry and Biophysics (*1983*), 222(2), 389-96
CODEN: ABBIA4; ISSN: 0003-9861

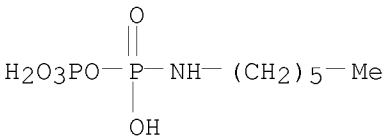
DOCUMENT TYPE: Journal

LANGUAGE: English

AB A partially purified enzyme (carbocyclase) from the flavedo of lemon formed α-pinene, β-pinene, limonene, and γ-terpinene from geranyl pyrophosphate (I) and neryl pyrophosphate. The maximum specific activities obtained were 7.0 and 3.6 nmol/min/mg, resp. Cross-inhibition by the 2 substrates was observed and the ability to utilize neryl

pyrophosphate was almost completely lost with aging. Citronellyl pyrophosphate and dimethylallyl pyrophosphate were the most effective inhibitors of carbocyclase. Isopentenyl pyrophosphate, the monophosphate esters of nerol and geraniol, as well as inorg. pyrophosphate were much less effective inhibitors. The enzyme had an absolute requirement for Mn2+. It could be replaced with .apprx.2% effectiveness by Mg2+ and Co2+. Kinetic studies showed that the observed reaction rate correlates with the calculated concentration of the I-(Mn2+)2 species. Previous evidence with nonenzymic reaction and the results presented support the view that the mechanism of carbocyclase may be the intramol. analog of prenyltransferase.

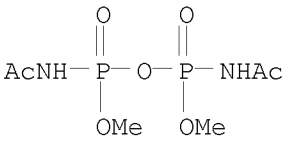
IT *85684-52-2*
RL: BIOL (Biological study)
(carbocyclase of lemon inhibition by)
RN 85684-52-2 CAPLUS
CN Amidodiphosphoric acid, hexyl- (9CI) (CA INDEX NAME)



L38 ANSWER 12 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1982:455889 CAPLUS
DOCUMENT NUMBER: 97:55889
ORIGINAL REFERENCE NO.: 97:9417a,9420a
TITLE: Oxidative conversion of phosphorothiolates to phosphinyloxysulfonates probably via phosphorothiolate S-oxides
AUTHOR(S): Segall, Yoffi; Casida, John E.
CORPORATE SOURCE: Dep. Entomol. Sci., Univ. California, Berkeley, CA, 94720, USA
SOURCE: Tetrahedron Letters (*1982*), 23(2), 139-42
CODEN: TELEAY; ISSN: 0040-4039
DOCUMENT TYPE: Journal
LANGUAGE: English

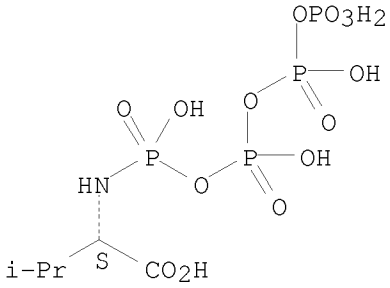
AB Oxidation of phosphorothiolates by m-ClC6H4C(O)OOH gave phosphinyloxysulfonates by a novel rearrangement reaction. E.g., RP(O)(OEt)SPr (R = 4,2-BrClC6H3O) (I) was oxidized by 3 equiv m-ClC6H4C(O)OOH at 25° for 1 h to give 25% I, 65-70% of a mixture of RP(O)(OEt)OP(O)(OEt)R and RP(O)(OEt)OS(O2)Pr, and 5-10% of a mixture of RP(O)(OEt)OC(O)C6H4Cl-3, RP(O)(OEt)OH, and HOS(O2)Pr. The reaction mechanism involves an oxidation, rearrangement, oxidation sequence probably via phosphorothiolate S-oxide and phosphinyloxysulfenate intermediates. The biol. oxidation of phosphorothiolates is discussed in terms of this mechanism.

IT *82452-52-6P*
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and NMR of phosphorus-31 of)
RN 82452-52-6 CAPLUS
CN P,P'-Diamidodiphosphoric acid, N,N'-diacetyl-, dimethyl ester (9CI) (CA INDEX NAME)



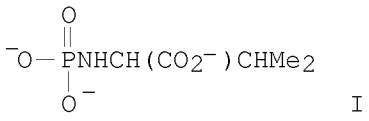
L38 ANSWER 13 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1981:192664 CAPLUS
DOCUMENT NUMBER: 94:192664
ORIGINAL REFERENCE NO.: 94:31541a,31544a
TITLE: The reaction of cyclo-tetraphosphate with L-valine
AUTHOR(S): Tsuhako, Mitsutomo; Fujita, Naoko; Nakahama, Akiko; Matsuo, Tsuneo; Kobayashi, Masamitsu; Ohashi, Shigeru
CORPORATE SOURCE: Kobe Women's Coll. Pharm., Kobe, 658, Japan
SOURCE: Bulletin of the Chemical Society of Japan (*1981*), 54(1), 289-90
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The title reaction at pH 12 gave N-phosphovaline in 3.2% yield at room temperature after 91 days or 0.3% yield at 70° after 1 day. The mechanism of the reaction was discussed.
IT *77489-26-0P*
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
RN 77489-26-0 CAPLUS
CN L-Valine, N-(1,3,5,7,7-pentahydroxy-1,3,5,7-tetraoxido-2,4,6-trioxa-1,3,5,7-tetraphosphahept-1-yl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L38 ANSWER 14 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1981:66005 CAPLUS
DOCUMENT NUMBER: 94:66005
ORIGINAL REFERENCE NO.: 94:10781a,10784a
TITLE: The reaction of cyclo-triphosphate with L-valine
AUTHOR(S): Tsuhako, Mitsutomo; Fujita, Naoko; Nakahama, Akiko; Matsuo, Tsuneo; Kobayashi, Masamitsu; Ohashi, Shigeru
CORPORATE SOURCE: Kobe Women's Coll. Pharm., Kobe, 658, Japan
SOURCE: Bulletin of the Chemical Society of Japan (*1980*), 53(7), 1968-72
CODEN: BCSJA8; ISSN: 0009-2673

DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

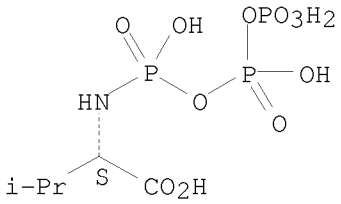
AB The title reaction in aqueous solution at pH 10-12 gave I, which decomposed into orthophosphate and valine at lower pH. The amount of I reached .apprx.22% at pH 12 and .apprx.9% at pH 10; at pH 10 small amts. of tetraphosphate and pentaphosphate were formed. The disappearance rate of cyclo-triphosphate was 1st order.

IT *76219-82-4P*
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and decomposition of)

RN 76219-82-4 CAPLUS

CN L-Valine, N-[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]- (CA INDEX NAME)

Absolute stereochemistry.



L38 ANSWER 15 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1980:165858 CAPLUS
DOCUMENT NUMBER: 92:165858
ORIGINAL REFERENCE NO.: 92:26874h,26875a
TITLE: Cyanamidotriphosphates
INVENTOR(S): Feldmann, Walter; Koehler, Helmut
PATENT ASSIGNEE(S): Akademie der Wissenschaften der DDR, Ger. Dem. Rep.
SOURCE: Ger. (East), 9 pp.
CODEN: GEXXA8
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DD 137715 | A1 | 19790919 | DD 1978-206596 | 19780710 <-- |

PRIORITY APPLN. INFO.: DD 1978-206596 A1 19780710

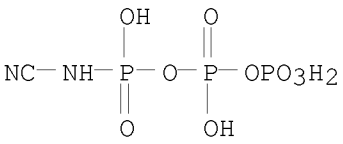
AB Alkali trimetaphosphates are reacted with cyanamide or with mono- or dialkali cyanamide in the molar ratio 1:0.8 to 1:1.2 while the molar ratio of trimetaphosphate to alkali metal introduced by an alkalizing agent is

1:1.8 to 1:2.2 in a medium with 0.3-0.58 L H2O/mol alkali trimetaphosphate at 15-30° for 0.5-15 days while stirring. After separation of the crystalline alkali triphosphate formed incidentally, the filtrate is crystallized to give M5P3O9NCN.1-6H2O (M = alkali metal). To form the ammonium salt the solution is treated with a cation exchanger and is then crystallized The alkalizing agent is NaOH or KOH or the alkali salt of a weak acid, e.g. Na2CO3 or K2CO3. The product, due to its content of cyanamide N and to its complexing ability for multivalent cations is used as a P-N fertilizer with cation binding properties and as an intermediate in the synthesis of polyphosphoric acid derivs. of cyanamide transformation products with flame inhibiting properties. Thus, Na3P3O9, cyanamide, NaOH, and H2O were reacted for 8 days at room temperature to form Na5P3O9NCN.4H2O.

IT *68825-06-9P*
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of)

RN 68825-06-9 CAPLUS

CN P-Amidotriphosphoric acid, N-cyano-, pentasodium salt (9CI) (CA INDEX NAME)



●5 Na

L38 ANSWER 16 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1980:146238 CAPLUS

DOCUMENT NUMBER: 92:146238

ORIGINAL REFERENCE NO.: 92:23753a,23756a

TITLE: Triphosphoric acid derivatives of cyanamide and urea

AUTHOR(S): Feldmann, W.; Koehler, H.

CORPORATE SOURCE: Zentralinst. Anorg. Chem., DAW, Berlin, DDR-1199, Ger. Dem. Rep.

SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (*1979*), 458, 74-84
CODEN: ZAACAB; ISSN: 0044-2313

DOCUMENT TYPE: Journal

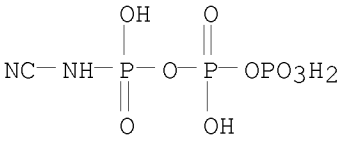
LANGUAGE: German

AB Ring cleavage of Na cyclotriphosphate (Na3P3O9) by Na2NCN (8 days at room temperature) gave Na5P3O9NCN which gave, upon treatment with AgNO3 or NH4+ (cation exchanger), M5P3O9NCN (M = Ag or NH4, resp.). Treatment of (NH4)5P3O9NCN with .apprx.0.1 N HCl for 2 h at room temperature, then with NH4OH to pH .apprx.9.5 gave (NH4)4P3O9NHCONH2.

IT *68825-06-9P* *73238-37-6P* *73238-38-7P* *73238-39-8P*
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

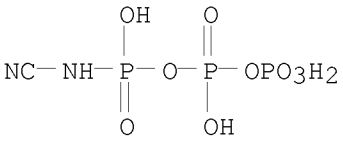
RN 68825-06-9 CAPLUS

CN P-Amidotriphosphoric acid, N-cyano-, pentasodium salt (9CI) (CA INDEX NAME)



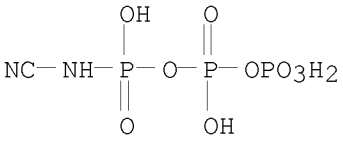
●5 Na

RN 73238-37-6 CAPLUS
CN P-Amidotriphosphoric acid, N-cyano-, pentasilver(1+) salt (9CI) (CA INDEX NAME)



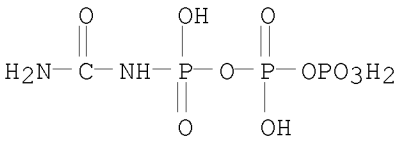
●5 Ag(I)

RN 73238-38-7 CAPLUS
CN P-Amidotriphosphoric acid, N-cyano-, pentaammonium salt (9CI) (CA INDEX NAME)



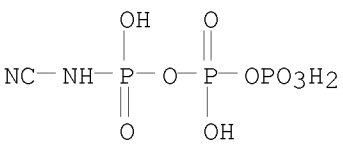
●5 $NH_3$

RN 73238-39-8 CAPLUS
CN P-Amidotriphosphoric acid, N-(aminocarbonyl)-, tetraammonium salt (9CI) (CA INDEX NAME)



●4 $NH_3$

L38 ANSWER 17 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1979:33168 CAPLUS
DOCUMENT NUMBER: 90:33168
ORIGINAL REFERENCE NO.: 90:5235a,5238a
TITLE: Cyanamidotriphosphate
AUTHOR(S): Feldmann, Walter; Koehler, Helmut
CORPORATE SOURCE: Zentralinst. Anorg. Chem., DAW, Berlin, Ger. Dem. Rep.
SOURCE: Zeitschrift fuer Chemie (*1978*), 18(10), 371-2
CODEN: ZECEAL; ISSN: 0044-2402
DOCUMENT TYPE: Journal
LANGUAGE: German
AB A concentrated aqueous 1:1 reaction mixture of Na3P3O9 and Na2NCN after shaking for 1 day underwent ring cleavage to give .apprx.1/2 of the P as crystals of unsubstituted triphosphate, Na5P3O10.6H2O and the other half as a solution containing the linear Na5P3O9NCN.4H2O (I), which was isolated by evaporation of the H2O. I can be converted to amorphous Ag5P3O9NCN.xH2O and to crystalline (NH4)5P3O9NCN.H2O. The 31P NMR of P3O9NCN5- shows 3 signals characteristic of end-substituted triphosphate ion. The properties of P3O9NCN5- are very similar to those of P3O10 5-.
IT *68825-06-9P*
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, in reaction of sodium trimetaphosphate with disodium cyanamide)
RN 68825-06-9 CAPLUS
CN P-Amidotriphosphoric acid, N-cyano-, pentasodium salt (9CI) (CA INDEX NAME)



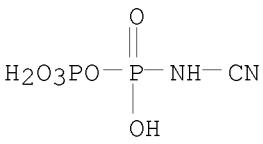
●5 Na

L38 ANSWER 18 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1977:550839 CAPLUS
DOCUMENT NUMBER: 87:150839
ORIGINAL REFERENCE NO.: 87:23869a,23872a
TITLE: Studies on the nutritional effects of some phosphorus compounds. 1. Preliminary study on phtotoxicity and absorption of cyanamide phosphates by rye-seedlings
AUTHOR(S): Allam, N.; Amer, S. A.
CORPORATE SOURCE: Fac. Agric., Cairo Univ., Giza, Egypt
SOURCE: Egyptian Journal of Soil Science (*1976*), 16(1), 37-45
CODEN: EJSSAF; ISSN: 0302-6701
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Newly proposed P fertilizers were prepared in which one of the amide-H atoms in the amidophosphoric acids was substituted with a cyanide group to obtain Na6[P2O5(NCN)3], Ca3[PO3(NCN)]2 [59857-23-7] and Na2[P2O5(NCN)]n [

64122-46-9]. These nonorthophosphatic P compds. were used along with NaH2PO4 and Na3PO4 to study their effect on medium pH, phytotoxicity, and P uptake by rye seedlings in a sand culture. The results revealed that the root system of the seedlings buffered their growth medium. Na content up to 4.5 mmol Na per pot did not affect seed germination, but slightly affected P absorption. High pH values depressed P uptake. Increasing the rate of N application could reduce the harmful effect resulting from high pH values and Na concentration on P absorption. Water-soluble Na cyanamidophosphate inhibited germination, in direct proportion to their solubility This effect was attributed to these compds. per se or to their degradation products. The polymerized cyanamidophosphate showed no toxic effect and supplied seedlings with P more rapidly than Na3PO4 but less rapidly than NaH2PO4.

IT 64122-46-9P
RL: PREP (Preparation)
(preparation of for fertilizer)

RN 64122-46-9 CAPLUS
CN Amidodiphosphoric acid, cyano-, disodium salt (9CI) (CA INDEX NAME)



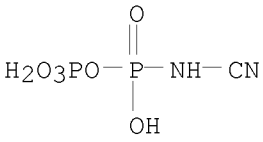
2 Na

L38 ANSWER 19 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1976:440308 CAPLUS
DOCUMENT NUMBER: 85:40308
ORIGINAL REFERENCE NO.: 85:6487a,6490a
TITLE: Pseudo-chalcogen compounds. X. Synthesis of cyanamidophosphates from phosphoryl chlorides
AUTHOR(S): Koehler, H.; Poessel, U.
CORPORATE SOURCE: Sekt. Chem., Martin-Luther-Univ., Halle/Saale, Ger. Dem. Rep.
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (1976), 423(1), 21-6
CODEN: ZAACAB; ISSN: 0044-2313
DOCUMENT TYPE: Journal
LANGUAGE: German

AB Cyanamidolytic reactions of POCl3 and P2O3Cl4 with NaNHCN gave POCl3-x(NHCN)x (x = 1, 2) and P2O3Cl4-x(NHCN)x (x = 1-4), resp. These products are transformed into cyanamidophosphates PO4-x(NCN)3- (x = 1, 2) and P2O7-x(NCN)x4- (x = 1-4) by reaction with NaOH. The cyanamidophosphates were precipitated as Ca and Ag salts, separated by chromatog., and characterized by 31P NMR.

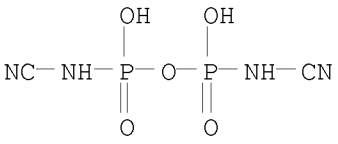
IT 59857-15-7P 59857-16-8P 59857-26-0P 59857-27-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 59857-15-7 CAPLUS
CN Amidodiphosphoric acid, cyano-, calcium salt (1:2) (9CI) (CA INDEX NAME)



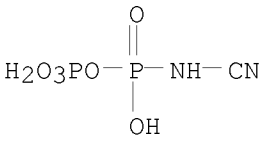
●2 Ca

RN 59857-16-8 CAPLUS
CN P,P'-Diamidodiphosphoric acid, N,N'-dicyano-, calcium salt (1:2) (9CI) (CA INDEX NAME)



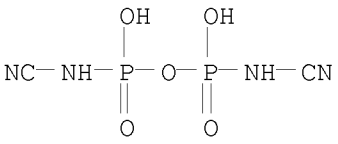
●2 Ca

RN 59857-26-0 CAPLUS
CN Amidodiphosphoric acid, cyano-, tetrasilver(1+) salt (9CI) (CA INDEX NAME)



●4 Ag(I)

RN 59857-27-1 CAPLUS
CN P,P'-Diamidodiphosphoric acid, N,N'-dicyano-, tetrasilver(1+) salt (9CI) (CA INDEX NAME)



●4 Ag(I)

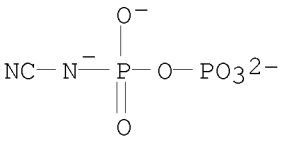
L38 ANSWER 20 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1976:440307 CAPLUS
DOCUMENT NUMBER: 85:40307
ORIGINAL REFERENCE NO.: 85:6487a,6490a
TITLE: Pseudo-chalcogen compounds. IX. The cyanamidolytic reaction of phosphorus oxide (P4O10). II
AUTHOR(S): Koehler, H.; Lange, U.
CORPORATE SOURCE: Sekt. Chem., Martin-Luther-Univ., Halle/Saale, Ger. Dem. Rep.
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (*1976*), 423(1), 15-20
CODEN: ZAACAB; ISSN: 0044-2313
DOCUMENT TYPE: Journal
LANGUAGE: German

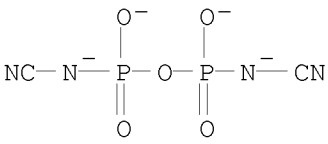
AB Cyanamidolytic reactions of P4O10 with NaOH-containing solns. of H2NCN gave primarily the cyanamidodiphosphates P2O7-x(NCN)x4- (x = 1, 2) along with some P3O9(NCN)5-. The products were separated by chromatog. and characterized by 31P NMR. The course of the reaction is discussed.

IT *59857-11-3P* *59857-12-4P* *59857-14-6P* *59857-15-7P* *59857-16-8P* *59857-17-9P*
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

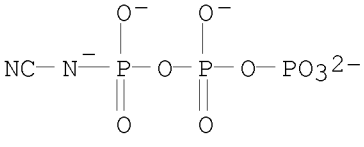
RN 59857-11-3 CAPLUS
CN Amidodiphosphoric acid, cyano-, ion(4-) (9CI) (CA INDEX NAME)



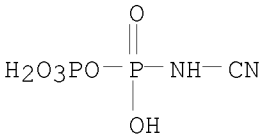
RN 59857-12-4 CAPLUS
CN P,P'-Diamidodiphosphoric acid, N,N'-dicyano-, ion(4-) (9CI) (CA INDEX NAME)



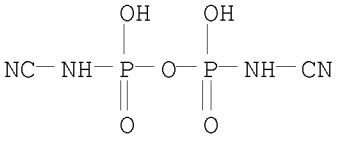
RN 59857-14-6 CAPLUS
CN P-Amidotriphosphoric acid, N-cyano-, ion(5-) (9CI) (CA INDEX NAME)



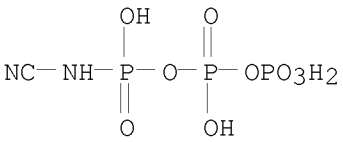
RN 59857-15-7 CAPLUS
CN Amidodiphosphoric acid, cyano-, calcium salt (1:2) (9CI) (CA INDEX NAME)



RN 59857-16-8 CAPLUS
CN P,P'-Diamidodiphosphoric acid, N,N'-dicyano-, calcium salt (1:2) (9CI) (CA INDEX NAME)



RN 59857-17-9 CAPLUS
CN P-Amidotriphosphoric acid, N-cyano-, calcium salt (2:5) (9CI) (CA INDEX NAME)



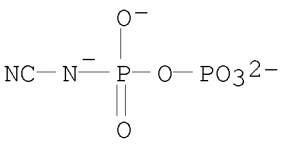


L38 ANSWER 21 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1976:440306 CAPLUS
DOCUMENT NUMBER: 85:40306
ORIGINAL REFERENCE NO.: 85:6487a,6490a
TITLE: Pseudo-chalcogen compounds. VIII. The cyanamidolytic reaction of phosphorus oxide (P4O10). I
AUTHOR(S): Koehler, H.; Uebel, R.; Lange, U.; Poessel, U.
CORPORATE SOURCE: Sekt. Chem., Martin-Luther-Univ., Halle/Saale, Ger. Dem. Rep.
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (*1976*), 423(1), 1-14
CODEN: ZAACAB; ISSN: 0044-2313
DOCUMENT TYPE: Journal
LANGUAGE: German
AB The pseudochalcogenide character of NCN2- was studied by reaction of P4O10 with Na2NCN in molar ratios 1:4 and 1:2 in the temperature range 150-360°. The reactants in 1:4 ratio gave mixts. of cyanamidodiphosphates, Na4P2O7-x(NCN)x (I), where x = 1-4, the amts. of

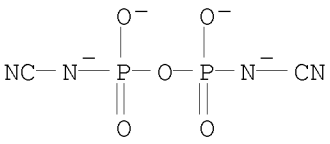
the different products depending on temperature The reactants in 1:2 ratio gave
I and cyanamidoultraphosphates. The products were separated by precipitation of Ca
and Ag salts and by chromatog. and characterized by NMR.

IT *59857-11-3P* *59857-12-4P*
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 59857-11-3 CAPLUS
CN Amidodiphosphoric acid, cyano-, ion(4-) (9CI) (CA INDEX NAME)



RN 59857-12-4 CAPLUS
CN P,P'-Diamidodiphosphoric acid, N,N'-dicyano-, ion(4-) (9CI) (CA INDEX NAME)



L38 ANSWER 22 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1976:107034 CAPLUS
DOCUMENT NUMBER: 84:107034
ORIGINAL REFERENCE NO.: 84:17443a,17446a
TITLE: Nitrogen-containing phosphorus compound
INVENTOR(S): Umemura, Misao; Tahara, Satoru; Kohashi, Masaru
PATENT ASSIGNEE(S): Daihachi Chemical Industry Co., Ltd., Japan
SOURCE: Jpn. Tokkyo Koho, 3 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 50028421 | B | 19750916 | JP 1969-32497 | 19690425 <-- |

PRIORITY APPLN. INFO.: JP 1969-32497 19690425

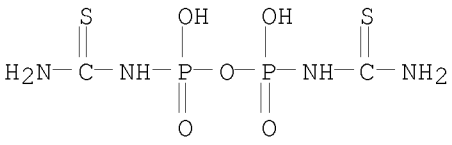
AB N-containing P compds., useful as fire retardants for substances having OH radicals such as cellulosic fibers, are prepared by a reaction between P2O5 [1314-56-3] and urea, thiourea [62-56-6], their alkylated derivs., or their ethylene oxide adducts in an inert solvent, followed by neutralization with a base. Thus, 120 parts urea [57-13-6] was dissolved in 500 parts (Me)3PO4, cooled, and mixed with 142 parts P2O5. Then NH3(g) was passed into the reaction product until saturation A white crystalline product
was collected in 98% yield by filtration, with the correct elemental anal.

for [H2NCONHP(O)(ONH4)]2O [58430-96-9].

IT 58430-95-8P 58430-96-9P
RL: IMF (Industrial manufacture); PREP (Preparation)
(fireproofing agents, preparation of)

RN 58430-95-8 CAPLUS

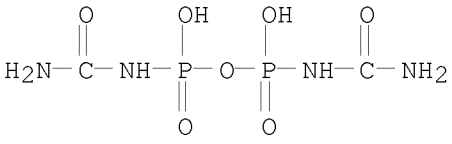
CN P,P'-Diamidodiphosphoric acid, N,N'-bis(aminothioxomethyl)-, diammonium salt (9CI) (CA INDEX NAME)



●2 $NH_3$

RN 58430-96-9 CAPLUS

CN P,P'-Diamidodiphosphoric acid, N,N'-bis(aminocarbonyl)-, diammonium salt (9CI) (CA INDEX NAME)



●2 $NH_3$

L38 ANSWER 23 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1973:113464 CAPLUS
DOCUMENT NUMBER: 78:113464
ORIGINAL REFERENCE NO.: 78:18211a,18214a
TITLE: Cyanamidophosphates
INVENTOR(S): Koehler, Helmut
SOURCE: Ger. (East), 7 pp.
CODEN: GEXXA8
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| DD 83117 | | 19710712 | DD 1969-143361 | 19691029 <-- |

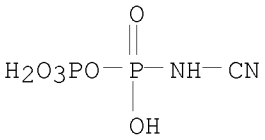
AB An intimate mixt, of 2-6 moles of alkali metal or alkaline earth cyanamides and i mole of P4O10 or P4S10 is heated in an inert gas atmospheric and in absence of H2O at 150-350° to form compds. of the type MP(NCN) X2, M3P(NCN)2.simeq. X2, M3P(NCN)X3, and M4 NCN)X2;, where M is a monovalent metal ion and X is O or S. The alkali salt products are very soluble in H2O

and the Ca salts are insol. They hydrolize less readily than PO(NH2)3 and similar P-N compds. and are useful as fertilizers, lubricants and corrosion inhibitors. In an example, P4O10 14.1 and Na2NCN 17.2 g. were mixed a dry N atmospheric and heated to 200-300°. The heat of reaction gave a melt of Na4[O2P(NCN)]2O.

IT *39382-19-9P*
RL: IMF (Industrial manufacture); PREP (Preparation)
(manufacture of)

RN 39382-19-9 CAPLUS

CN Amidodiphosphoric acid, cyano-, calcium salt (1:1) (9CI) (CA INDEX NAME)



Ca

L38 ANSWER 24 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1973:59677 CAPLUS

DOCUMENT NUMBER: 78:59677

ORIGINAL REFERENCE NO.: 78:9459a,9462a

TITLE: Flame-retardant finishing with diureidopyrophosphoramides

AUTHOR(S): Okamoto, Kazuyoshi; Tsuji, Hiroaki; Segawa, Yoshitaka

CORPORATE SOURCE: Hyogo Fiber Ind. Training Inst., Japan

SOURCE: Sen'i Kako (*1972*), 24(10), 651-60
CODEN: SNKAB2; ISSN: 0037-217X

DOCUMENT TYPE: Journal

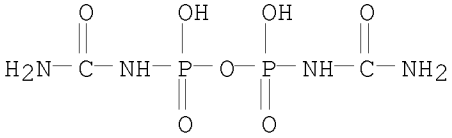
LANGUAGE: Japanese

AB The fire resistance of a rayon textile was improved by curing the textile impregnated with diureidopyrophosphoramide (I) at 165.deg. for 5 min. The tensile strength of the textile impregnated with I in the presence of a mixture of urea, NH4Cl, and trimethylolmelamine was greater than that of the textile treated with I only. The washfastness of the textile fire resistance was improved by treating the textile containing I with 1% aqueous formic acid [64-18-6] solution

IT *40375-12-0*
RL: USES (Uses)
(rayon fireproofing by)

RN 40375-12-0 CAPLUS

CN P,P'-Diamidodiphosphoric acid, N,N'-bis(aminocarbonyl)- (CA INDEX NAME)



L38 ANSWER 25 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1972:525813 CAPLUS

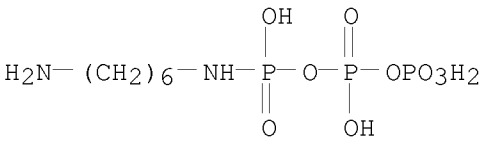
DOCUMENT NUMBER: 77:125813
ORIGINAL REFERENCE NO.: 77:20733a,20736a
TITLE: Interaction of sodium trimetaphosphate with hexamethylenediamine
AUTHOR(S): Dombrovskii, N. M.; Dorosh, A. I.
CORPORATE SOURCE: Chernovits. Gos. Univ., Chernovtsy, USSR
SOURCE: Zhurnal Neorganicheskoi Khimii (*1972*), 17(7), 1892-7
CODEN: ZNOKAQ; ISSN: 0044-457X
DOCUMENT TYPE: Journal
LANGUAGE: Russian

GI For diagram(s), see printed CA Issue.

AB HO[P(O)(ONa)O]2P(O)(ONa)NH(CH2)6NH2 (I) was prepared. by reaction of crystalline II6H2O with an aqueous solution of H2N(CH2)6NH2 10-15 min at 55-65°. The Ea of the reaction is 16.4 kcal/mole. I is stable in basic but dissocs. in neutral or acidic solns. to form the cyclic trimetaphosphate. The mechanism of recyclization is discussed.

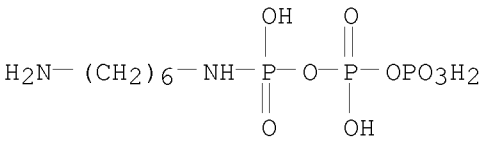
IT *37817-96-2P* *37817-97-3P* *37817-98-4P*
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 37817-96-2 CAPLUS
CN P-Amidotriphosphoric acid, N-(6-aminohexyl)-, trisodium salt (9CI) (CA INDEX NAME)



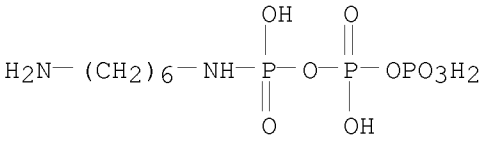
●3 Na

RN 37817-97-3 CAPLUS
CN P-Amidotriphosphoric acid, N-(6-aminohexyl)-, barium salt (1:2) (9CI) (CA INDEX NAME)



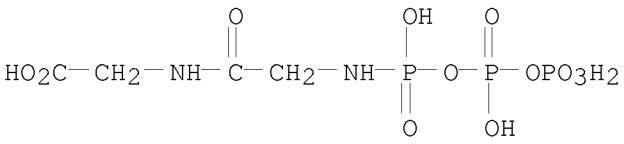
●2 Ba

RN 37817-98-4 CAPLUS
CN P-Amidotriphosphoric acid, N-(6-aminohexyl)-, tetrasilver(1+) salt (9CI) (CA INDEX NAME)



● 4 Ag(I)

L38 ANSWER 26 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1971:406296 CAPLUS
DOCUMENT NUMBER: 75:6296
ORIGINAL REFERENCE NO.: 75:1051a,1054a
TITLE: Mechanism of the trimetaphosphate-induced peptide synthesis
AUTHOR(S): Chung, N. M.; Lohrmann, R.; Orgel, L. E.; Rabinowitz, J.
CORPORATE SOURCE: Salk Inst. Biol. Stud., San Diego, CA, USA
SOURCE: Tetrahedron (*1971*), 27(6), 1205-10
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The formation of peptides from glycine in the presence of trimetaphosphate proceeds mainly via peptide N-phosphates as intermediates. The interaction of glycine with trimetaphosphate leads first to the formation of a cyclic acylphosphoramidate and pyrophosphate. The cyclic compound then reacts with the free amine group of glycine or diglycine to give diglycine N-phosphate or triglycine N-phosphate.
IT *32177-70-1P*
RL: FORM (Formation, nonpreparative); PREP (Preparation)
(formation of, from glycylglycine reaction with trimetaphosphate)
RN 32177-70-1 CAPLUS
CN Glycine, N-[N-[hydroxy[[hydroxy(phosphonooxy)phosphinyl]oxy]phosphinyl]glycyl]- (9CI) (CA INDEX NAME)



L38 ANSWER 27 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1966:448467 CAPLUS
DOCUMENT NUMBER: 65:48467
ORIGINAL REFERENCE NO.: 65:9111f-g
TITLE: Antistatic thermoplastic polymers
PATENT ASSIGNEE(S): Farbwerke Hoechst A.-G.
SOURCE: 12 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| NL 6512433 | | 19660328 | NL 1965-12433 | 19650924 <-- |
| BE 670159 | | | BE | |

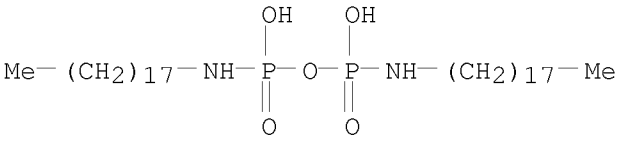
PRIORITY APPLN. INFO.: DE 19640926

AB Polymers are rendered antistatic by blending with 0.1 to 7% by weight of linear or cross-linked N-alkylsubstituted phosphoramide polymers (I) in which the P atoms are linked by N or O and the P/N ratio is between 1-0.5. One substituent on N is H or C1-4 alkyl, the other a C12-18 alkyl group. I is prepared by reacting P2O5 with an excess (100 to 300 mole %) of the corresponding primary or secondary amine. Thus, 0.8 mole P2O5 is heated at 160° in the presence of 2 moles of a mixture of MeNHC18H37 and MeNHC16H33 (50:50 by weight) to yield a yellow mass (II) which is cooled and ground. Low density polyethylene-polyacetal resin and butadiene-styrene copolymer, blended with 0.2, 1 and 4% by weight of II give a negative ash test.

IT *14513-30-5*
(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 14513-30-5 CAPLUS

CN P,P'-Diamidopyrophosphoric acid, N,N'-dioctadecyl- (6CI, 7CI, 8CI) (CA INDEX NAME)



L38 ANSWER 28 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1966:448466 CAPLUS

DOCUMENT NUMBER: 65:48466

ORIGINAL REFERENCE NO.: 65:9111d-f

TITLE: Hardeners for epoxy resins

PATENT ASSIGNEE(S): Imperial Chemical Industries Ltd.

SOURCE: 8 pp.

DOCUMENT TYPE: Patent

LANGUAGE: Unavailable

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| NL 6506649 | | 19651129 | NL 1965-6649 | 19650525 <-- |
| BE 664556 | | | BE | |
| GB 1033697 | | | GB | |

PRIORITY APPLN. INFO.: GB 19640527

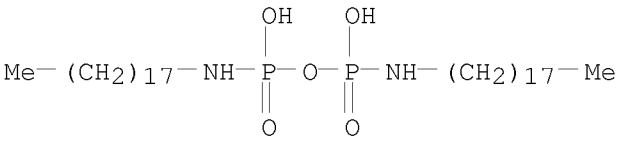
AB Hardeners (I) and the corresponding 5-ring derivs. (II), their anhydrides and their partially esterified products were found to harden epoxy resins (III) to give products with good phys. properties. Because of the excellent solubilities of I and I1 in III even in the presence of conventional hardeners no catalysts are necessary. Thus, 100 parts (by weight) Epikote 828 (IV) was mixed with 40 parts I during 5 min. at 195°, the mixture kept 24 hrs. at 150° and 2 hrs. at 200° to give a slightly yellow product with good mech. and elec. properties. Hardening of IV (100 parts) could also be accomplished by mixing with 19 parts II and 38 parts 1,2-cyclohexanedicarboxylic anhydride

at 190° followed by heating at 80-100° during 16 hrs. to give an almost colorless product.

IT *14513-30-5*
(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 14513-30-5 CAPLUS

CN P,P'-Diamidopyrophosphoric acid, N,N'-dioctadecyl- (6CI, 7CI, 8CI) (CA INDEX NAME)



L38 ANSWER 29 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1965:48855 CAPLUS

DOCUMENT NUMBER: 62:48855

ORIGINAL REFERENCE NO.: 62:8638f-g

TITLE: Condensed phosphates and arsenates. XLII. Cleavage of trimetaphosphate ions, [P3O9]3-, by NH3 and methylamine, and recyclization of the formed amidotriphosphates

AUTHOR(S): Feldmann, W.

CORPORATE SOURCE: Deut. Akad. Wiss., Berlin

SOURCE: Zeitschrift fuer Chemie (*1965*), 5(1), 26-7
CODEN: ZECEAL; ISSN: 0044-2402

DOCUMENT TYPE: Journal

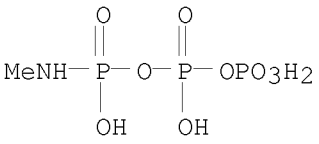
LANGUAGE: German

AB cf. CA 61, 11591h. Na3[P3O9] was aminated by mixing. with NH3, MeNH2, or Me2NH to give [P3O9NH2]4- (I), [P3O9NHMe]4-(II), or [P3O9NMe2]4- (III), resp., but was not aminated with Me3N. I, II, or III were isolated as the Ag salts by treating with AgNO3 solution The Ag salts were recyclized to I, II, or III by treating with NaC1 solution The amination and recyclization rates were studied kinetically.

IT *3058-29-5*
(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 3058-29-5 CAPLUS

CN P-Amidotriphosphoric acid, N-methyl-, silver salt (8CI, 9CI) (CA INDEX NAME)



L38 ANSWER 30 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1965:48854 CAPLUS

DOCUMENT NUMBER: 62:48854

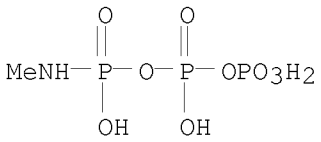
ORIGINAL REFERENCE NO.: 62:8638d-f

TITLE: Analysis of a mixture of some anions using reactions leading to formation of lead fluorohalides
AUTHOR(S): Talipov, Sh. T.; Podgornova, V. S.
SOURCE: Doklady Akademii Nauk UzSSR (*1964*), 21(10), 41
CODEN: DANUAO; ISSN: 0134-4307
DOCUMENT TYPE: Journal
LANGUAGE: Russian

AB Separation of Cl-, Br-, and I- from SCN- by precipitation of the first 3 ions as PbFCl, PbFBr, and PbFI with NaF and Pb(NO3)2 solns., was investigated. A solution containing Cl-, Br-, I-, and SCN- (3 drops) was first treated with NaF solution (6-9 drops), the mixture was slightly warmed at 30-40° then Pb(NO3)2 solution (10-12 drops) was added until the precipitation was completed. The resulting mixture was thoroughly stirred with a glass rod then centrifuged. The precipitate contained PbFCl, PbFBr, and PbFI and the solution SCN-. The precipitate was washed with cold water until the washings were free from SCN-, then dissolved in a warm saturated NH4OAc solution (20-5 drops). A solution of 2N Na2SO4 (or H2SO4) to precipitate all Pb2+ was added. The precipitate was filtered and discarded and the filtrate retained for the determination of Cl, Br, and I.

IT *3058-29-5*
(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 3058-29-5 CAPLUS
CN P-Amidotriphosphoric acid, N-methyl-, silver salt (8CI, 9CI) (CA INDEX NAME)



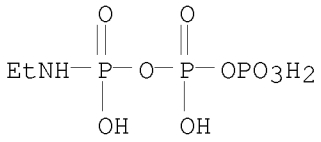

L38 ANSWER 31 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1964:452983 CAPLUS
DOCUMENT NUMBER: 61:52983
ORIGINAL REFERENCE NO.: 61:9161f-h
TITLE: Condensed phosphates and arsenates. XL. N-methyl- and N-ethylamidotriphosphate, (P3O9NHCH3)4- and (P3O9NHC2H5)4-
AUTHOR(S): Feldmann, W.; Thilo, E.
CORPORATE SOURCE: Deut. Akad. Wiss., Berlin
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (*1964*), 327(3-4), 159-64
CODEN: ZAACAB; ISSN: 0044-2313
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. CA 61, 8968g. Paper chromatography showed that aminolysis of P3O93- (I) produced P3O9NHR4- when the RNH2:I ratio was 2. For a ratio of 4.06, further aminolysis was observed. Ag4(P3O9NHMe) and Ag4(P3O9NHEt).H2O can be precipitated from amine-containing Na3P3O9 solns. Solns. of the corresponding

alkali salts can be made by treatment of the Ag salts with alkali chloride; precipitation of impure and amorphous Na salts can be effected with MeOH and of crystalline Li4(P3O9NHMe).3H2O with acetone. Aqueous solns. of (NH4)4(P3O9NHMe) and (NH3Me)(P3O9NHMe) decompose by evolving NH3 or MeNH2 and reforming I. In neutral and acid solns. (P3O9NH2)4- (II) is more stable than (P3O9NHMe)4- (III). In acid solution, II, P3O9NHEt4-, and III are quant. converted to I.

IT *93967-07-8P*, Amidotriphosphoric acid, ethyl-, silver salt
*857366-33-7P*, Methylamine, methylamidotriphosphate (4:1)
*859039-50-2P*, Amidotriphosphoric acid, methyl-, sodium salt
*859039-52-4P*, Amidotriphosphoric acid, methyl-, lithium salt
*859039-55-7P*, Amidotriphosphoric acid, methyl-, ammonium salt
RL: PREP (Preparation)
(preparation of)

RN 93967-07-8 CAPLUS
CN Amidotriphosphoric acid, ethyl-, Ag salt (7CI) (CA INDEX NAME)

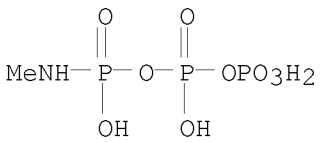


4 Ag(I)

RN 857366-33-7 CAPLUS
CN Methylamine, methylamidotriphosphate (4:1) (7CI) (CA INDEX NAME)

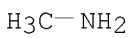
CM 1

CRN 807260-57-7
CMF C H8 N O9 P3

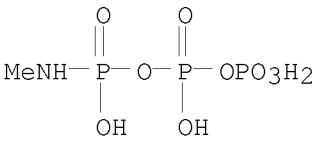


CM 2

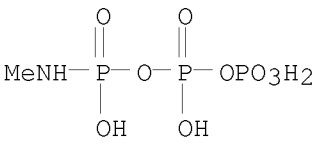
CRN 74-89-5
CMF C H5 N



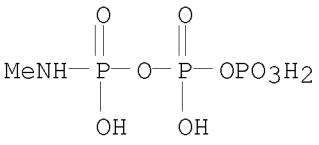
RN 859039-50-2 CAPLUS
CN INDEX NAME NOT YET ASSIGNED




RN 859039-52-4 CAPLUS
CN INDEX NAME NOT YET ASSIGNED




RN 859039-55-7 CAPLUS
CN INDEX NAME NOT YET ASSIGNED



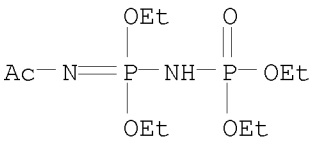

L38 ANSWER 32 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1963:26714 CAPLUS
DOCUMENT NUMBER: 58:26714
ORIGINAL REFERENCE NO.: 58:4401b-f
TITLE: Tautomerism of phosphamidines
AUTHOR(S): Kabachnik, M. I.; Gilyarov, V. A.; Popov, E. M.
CORPORATE SOURCE: Inst. Heteroorg. Compds., Moscow
SOURCE: Zhurnal Obshchei Khimii (*1962*), 32, 1598-604
CODEN: ZOKHA4; ISSN: 0044-460X
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. CA 54, 19555a. Infrared spectra were reported for a series of compds. with the P(:NR)NHR group, in a search for detection of possible tautomerism of a prototropic nature between the two nitrogenous groups. This phenomenon appeared to have been confirmed and the position of equilibrium between the 2 forms was shown to depend on the electrophilic properties of R groups. The study consisted in determination of the characteristic frequency of
the carbonyl group in (EtO)2P(:NR)NHAc, where R = Ph, Ac, or PO(OEt)2; the

carbonyl frequencies in these were 1580 and 1600; 1588, 1609, 1653 and 1704; and 1710 cm.-1, resp., while the P:N frequencies were 1380, 1364, and 1338 (and 1367), resp. This indicated the expected gradation of the case of protonation of the substituted N atom, indicative of tautomeric equilibrium The infrared carbonyl bands were found to be as follows in authentic imides: (PrO)3P:NAc 1618 (P:N 1365); (EtO)3P:NCOEt 1616 (P:N 1380; the substance, b1 103-4°, n20D 1.4360, d20 1.0557); (EtO)2PPh:NAc 1602 (P:N 1365); (PrO2)PEt:NAc 1606 (P:N 1360). All these carbonyl frequencies were in 1600-20 cm.-1 region, while compds. with the P(O)NHCO group had these frequencies in 1700 cm.-1 region: (EtO)2P(O)NHAc 1710, EtOPEt(O)NHAc 1695, (EtO)PEt(O)NHAc 1700 cm.-1 Thus, the acylated imido group could be identified by the carbonyl frequency of about 1700 cm.-1 Addition of AcN3 to (EtO)2PNHPh in Et2O at 0-5° gave (EtO)2P(NHPh):NAc, b0.007 85-6°, n20D 1.5200, d20 1.1356; the same substance, b0.0001 79-80°, 1.5175, 1.1365, formed from (EtO)2PHNAc and PhN3, thus confirming the tautomerism shown above. Similarly was prepared (EtO)2P(NHPh): NC6H4NO2-p, m. 103-4.5°, or 102-3°; (EtO)2P(NHAc):NP(O)(OEt)2, b0.00005 93-5°, 1.4602, 1.1862. (PrO)3P and AcN3 gave (PrO)3P:NAc, b0.25 69°, 1.4419, 1.0213. AcN3 and PhP(OEt)2 gave (EtO)2PPh:NAc, b0.35 96-7°, 1.5120, 1.1126. Similarly were prepared: (EtO)2P(NHAc):NAc, b0.0004 62-4°, 1.4680, 1.1860; (PrO)2PEt:NAc, b0.0004 66-7°, 1.4490, 1.0041; (EtO)2P(NMePh):NAc, b0.0001 52-4°, 1.5135, 1.1295. (EtO)2POP(OEt)2 and p-O2NC6H4NH2 under N 2 days gave after concentration in vacuo some (EtO)2PHO
and a residue of 63.3% (EtO)2PNHC6H4NO2-p, m. 40-2°, a very hygroscopic solid. The results indicated that the labile proton tended to appear at the N atom attached to the Ph group in competition with the NAc grouping, while in the competition between an Ac group and a phosphoryl group, the former acquired the proton at its attached N atom.

IT *91135-25-0P*, Phosphoramidic acid, (acetamidodiethoxyphosphoranylidene)-, diethyl ester
RL: PREP (Preparation)
(preparation of)

RN 91135-25-0 CAPLUS

CN Phosphoramidic acid, (acetamidodiethoxyphosphoranylidene)-, diethyl ester (7CI) (CA INDEX NAME)



L38 ANSWER 33 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1958:25633 CAPLUS
DOCUMENT NUMBER: 52:25633
ORIGINAL REFERENCE NO.: 52:4679a-c
TITLE: Phosphoric acid diesters
INVENTOR(S): Yamazaki, Riichiro
PATENT ASSIGNEE(S): Kyoeisha Yushi Kagaku Kogyo Co., Ltd.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

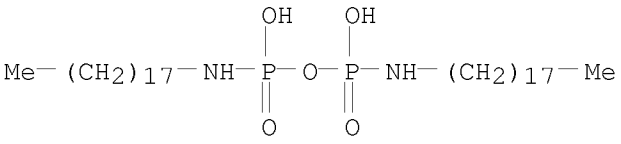
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| JP 32000960 | B4 | 19570213 | JP | <-- |

AB Me(CH2)17NH2 100 and P2O5 20 heated 3 hrs. at 80° and the P2O5, on the bottom removed gave [Me(CH2)17NHPO(OH)]2O (I) 118 parts, m. 73°, d73 1.16, n40D 1.3821; II treated dropwise with Me2C(OH)NH2 19-20 parts and heated at 120° yielded 80-5% Me(CH2)17NHPO(OH)OCMe2NH2 (II), m. 160° (decomposition). Similarly, dodecyl alc., P2O5, and HOC2H4NH2 yielded 80-5% C12H25OPO(OH)OC2H4NH2 (III), m. 160° (decomposition); stearoylamine, P2O5, and N(C2H4OH)3 yielded 80-5% C17H35CONHPO(OH)OC2H4N(C2H4OH)2 (IV), m. 160° (decomposition). Urea 15 and formalin 30 parts was treated with NH4OH to pH 7.5 and heated 2 hrs. at 40° to obtain an initial condensate; this treated with II, III or IV 2 in H2O 53 parts, serge cloth immersed in this resin solution, rinsed, dried, and heated 5 min. at 140° gave H2O-repellent and softened cloth.

IT *14513-30-5P*, P,P'-Diamidopyrophosphoric acid, N,N'-dioctadecyl-
RL: PREP (Preparation)
(preparation of)

RN 14513-30-5 CAPLUS

CN P,P'-Diamidopyrophosphoric acid, N,N'-dioctadecyl- (6CI, 7CI, 8CI) (CA INDEX NAME)



L38 ANSWER 34 OF 34 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1950:58122 CAPLUS
DOCUMENT NUMBER: 44:58122
ORIGINAL REFERENCE NO.: 44:11011d-e
TITLE: Stabilization of insecticides by aromatic azomethines
INVENTOR(S): Smith, Herschel G.; Hill, Mark L.; Cantrell, Troy L.
PATENT ASSIGNEE(S): Gulf Oil Corp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| US 2522311 | | 19500912 | US 1948-27828 | 19480518 <-- |

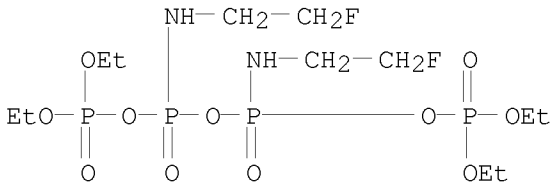
AB Compds., such as N-benzylideneaniline, N-benzylidene-3,5-xylidine, N-furfurylideneaniline, and N-cinnamylideneaniline, in amts. of 0.2-1.0% added to a 6% kerosene solution of DDT prevented settling, and in amts. of 0.2-0.5% in a 0.1% kerosene solution of pyrethrin prevented settling when the solution was exposed to ultraviolet light. The compds. also synergized the toxic effects of pyrethrins.

IT *830322-03-7P*, Diamidotetraphosphoric acid, N,N'-bis(2-fluoroethyl)-, hexaethyl ester
RL: PREP (Preparation)
(preparation of)

RN 830322-03-7 CAPLUS

CN Diamidotetraphosphoric acid, N,N'-bis(2-fluoroethyl)-, hexaethyl ester

(5CI)  (CA INDEX NAME)



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FILE 'REGISTRY' ENTERED AT 16:24:03 ON 30 DEC 2008
L1 SCREEN 1942 AND 1992 AND 2006 AND 2016
L2 STRUCTURE UPLOADED
L3 QUE L2 AND L1
L4 0 S L3 SSS SAM
L5 0 S L2 SSS SAM

FILE 'REGISTRY' ENTERED AT 16:27:13 ON 30 DEC 2008
L6 SCREEN 1942 AND 1992 AND 2006 AND 2016
L7 STRUCTURE UPLOADED
L8 QUE L7 AND L6
L9 0 S L8 SSS SAM
L10 0 S L7 SSS SAM
L11 5 S L7 SSS FULL

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L12 4 S L11
L13 1 S L12 AND PY<=2004

FILE 'MARPAT' ENTERED AT 16:29:09 ON 30 DEC 2008
L14 19 S L11 SSS SAM
L15 319 S L11 SSS FULL

FILE 'CAPLUS' ENTERED AT 16:29:51 ON 30 DEC 2008
L16 319 S L15
L17 243 S L16 AND PY<=2004
L18 16 S L17 AND PHOSPHORAM?

FILE 'REGISTRY' ENTERED AT 17:21:25 ON 30 DEC 2008
L19 STRUCTURE UPLOADED
L20 22 S L19 SSS SAM

FILE 'STNGUIDE' ENTERED AT 17:23:29 ON 30 DEC 2008

FILE 'REGISTRY' ENTERED AT 17:23:57 ON 30 DEC 2008
L21 STRUCTURE UPLOADED
L22 19 S L21 SSS SAM
E P-AMIDOTRIPHOSPHORIC ACID, N-CYANO-/CN
L23 1 S E3

FILE 'CAPLUS' ENTERED AT 17:27:08 ON 30 DEC 2008
L24 0 S L23

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     FILE 'STNGUIDE' ENTERED AT 17:27:33 ON 30 DEC 2008

     FILE 'REGISTRY' ENTERED AT 17:27:38 ON 30 DEC 2008
                E  P,P'-DIAMIDODIPHOSPHORIC ACID, N,N'-DICYANO-/CN
L25             1 S E19
                E 3,5,7,9,11-PENTAAZA-4,6,8,10-TETRAPHOSPHATRIDECANEDIOIC ACID,
L26             1 S E4

     FILE 'CAPLUS' ENTERED AT 17:29:23 ON 30 DEC 2008
L27             1 S L26

     FILE 'STNGUIDE' ENTERED AT 17:29:38 ON 30 DEC 2008

     FILE 'CAPLUS' ENTERED AT 17:32:15 ON 30 DEC 2008
L28          2194 S PHOSPHORAMIDATE NOT (NUCLEO!IDE)
L29          1855 S L28 AND PY<=2003
L30             5 S \L29 AND (T CELLS)
L31             0 S L29 AND (T CELLS)

     FILE 'REGISTRY' ENTERED AT 17:43:03 ON 30 DEC 2008
L32               SCREEN 1838
L33               STRUCTURE UPLOADED
L34               QUE L33 NOT L32
L35             3 S L34 SSS SAM
L36            82 S L34 SSS FULL

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L37            43 S L36
L38            34 S L37 AND PY<=2003

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L33               STR
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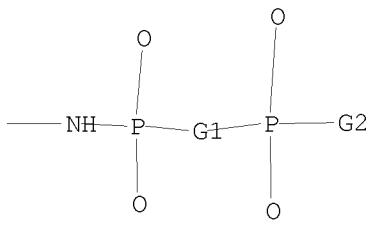


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G1 O,N
G2 C,O,N


Structure attributes must be viewed using STN Express query preparation.


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FULL ESTIMATED COST                                   188.38     750.20

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE -27.20 -43.20

SESSION WILL BE HELD FOR 120 MINUTES
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